

National Safety News

JANUARY 1950



REvised Jan-June 1950
MATCH YOUR BREATHING HAZARDS WITH ...

*Correct Protection**

*OFFICIALLY APPROVED BY THE U.S. BUREAU OF MINES

**FOR OXYGEN DEFICIENCIES, HEAVY
 GAS AND SMOKE CONCENTRATIONS
 —45-MINUTE MINIMUM SERVICE**

The UNIQUE

M·S·A
 TRADE MARK REGISTERED
Chemox
 SELF-GENERATING

OXYGEN BREATHING APPARATUS

For complete respiratory protection in unbreathable air—in choking smoke, poisonous gases, oxygen-lacking atmospheres—use CHEMOX! This comfortable, easy-to-use apparatus *makes its own oxygen* as you breathe, with a replaceable chemical canister ... weighs only 13½ lbs. complete ... no high-pressure cylinders, valves or fittings ... delivers a full forty-five minutes' service time under hard physical work. Write for the facts in Bulletin B-14!



**FOR GASES AND SMOKE ... WHERE
 OXYGEN IS SUFFICIENT IN AIR**

**½ HOUR SERVICE FOR OXYGEN
 DEFICIENCIES, GASES AND SMOKE**



M·S·A
All-Service
GAS MASK

In air contaminated with smoke or gases, but containing 16% or more of oxygen, this famous gas mask provides protection recognized everywhere for dependability and simplicity. Lightweight harness allows full working freedom—All-Service canister is quickly replaceable. Bulletin EA-8.

M·S·A
Demand Mask

Supplying compressed oxygen or certified pure air from back-carried cylinder to the facepiece, the M·S·A Demand Mask protects the wearer in toxic or oxygen-deficient atmospheres for a period of one-half hour. Bulletin B-16.



MINE SAFETY APPLIANCES COMPANY

BRADDOCK, THOMAS AND MEADE STREETS · PITTSBURGH 8, PA.

At Your Service:

54 BRANCH OFFICES IN THE UNITED STATES AND CANADA

How workers look at safety goggles . . .

"Are they comfortable?"



The answer to that question in your plant will determine to a large extent how effective your safety program is.



MonoGoggle Style No. 1

To most workers, comfort—or the lack of it determines whether or not they wear goggles or carry them around in their pockets. Whether they need safety spectacles, heavy duty goggles or plastic eye protection for minor hazards—look to the WILLSON line for comfort that gets safety equipment worn. The lightest weight commensurate with safety in a given operation; a choice of sizes; adjustability for exact fit; anatomically shaped eyecups and frames; and other comfort features make WILLSON safety equipment "easy on the eyes."



NEW CATALOG

In addition to product information, it contains information on safety glass, filter glass, respiratory hazards, etc., which will help you select proper safety equipment to meet specific hazards. Send for it!



WILLSON PRODUCTS, INC., 205 WASHINGTON STREET, READING, PENNA.



NATIONAL SAFETY NEWS



Published monthly by the
National Safety Council

JANUARY, 1950

Vol. 61, No. 1

THE COVER. The Allatoona Dam on the Etowah River near Cartersville, Ga. On this project 600 men worked three and a half years without a fatality or a permanently disabling injury.

CONTENTS

An Outstanding Example of Air Force Economy— W. Stuart Symington.....	18
Looking Back and Ahead—Harold C. Zulauf.....	20
Gen. Henry A. Reninger, NSC Past President, Dies.....	21
Allatoona Dam—A Safe Heavy Construction Project— Lester H. White.....	22
Punch Presses Can Be Guarded—R. F. Thuma.....	24
NSC Profiles—Dr. John W. Studebaker.....	27
The Highway Engineer is a Safety Man—C. L. Mott.....	28
The Industrial Safety Panel Discusses the Member Training Course.....	30
Steel Strapping—Flat or Round—Data Sheet D-Gen. 38.....	32
An Oil Refinery Controls Hazards.....	34
Statistics Are a Headache (The Diary of a Safety Engineer)—Bill Andrews.....	36
Labor-Management Cooperation in Safety in Sweden— Gunnar Hultman.....	39

DEPARTMENTS

Editorial.....	17	Accident Barometer.....	54
The Safety Valve.....	37	Coming Events.....	60
Cause and Cure.....	38	Personals.....	63
The Safety Library.....	40	The President's Medal.....	64
The Lighter Side.....	42	Tools for Your Safety Program.....	65
Green Cross News.....	48	The Honor Roll.....	76
Industrial Health.....	52	New Products.....	101

27,900 copies of this issue were printed.

BILL ANDREWS, *Editorial Director* CARMAN FISH, *Editor*
NORVAL BURCH, *Associate Editor* ROBERT L. MEYER, *Associate Editor*
C. H. MILLER, *Advertising Manager* RALPH MOSES, *Art Director*

Statements and opinions advanced in signed articles are the personal expressions of their authors, not necessarily those of the National Safety Council.

Copyright 1949 by National Safety Council, Inc. Printed in U. S. A. Entered as second class matter June 21, 1921, at the Post Office at Chicago, Illinois, under the act of March 3, 1879. Subscription rate: To members, \$5.00 per year, single copies, 50 cents; to non-members, \$7.50 per year, single copies, 75 cents. Quantity prices for yearly subscriptions and single issues on request. Member Audit Bureau of Circulation. Indexed in Industrial Arts Index.

In This Issue . . .

EVERY dollar lost through accidents to Air Force personnel and materiel means that much less for national defense. The Ground Safety Program of the Department of the Air Force is making a substantial contribution to this conservation of manpower and tax revenue. (Page 18).

• • •

To realize how good we are—from the standpoint of safety—we have only to look back a few years. But how will our present record look to future generations? Harold C. Zulauf, an industrial executive who has served ably on the President's Conference on Industrial Safety takes a look in the rear-view mirror and through the windshield. (Page 20).

• • •

When 600 men work more than three years on a heavy construction project, experience for the industry would indicate that at least three fatalities might be expected. But 42 months after this job started, the score still stood at no fatalities and no permanent disability cases. (Page 22).

• • •

Effective guarding of punch presses is often a complicated mechanical problem but it doesn't stop there. In addition to presses and dies it involves supervision, the operators, and the men who make the guards. (Page 24).

National Safety Council

20 North Wacker Drive
Chicago 6, Illinois

New York Office—800 Chrysler Bldg.,
New York 17. Western Office—
111 Sutter Street, San Francisco

WILLIAM A. IRVIN, Chairman, Board of
Trustees

JAMES TANHAM, Chairman, Board of
Directors

NED H. DEARBORN, President

GUY L. NOBLE, Vice-president for Farms
O. GRESSENS, Vice-president for Finance
and Treasurer

DR. D. B. ARMSTRONG, Vice-president
for Homes

GEORGE A. JACOBY, Vice-president for
Industry

KENNETH B. COLMAN, Vice-president
for Local Safety Organization

E. W. KEMPTON, Vice-president for
Membership

BOYD LEWIS, Vice-president for Public
Information

DR. JOHN W. STUDEBAKER, Vice-presi-
dent for Schools and Colleges

THOMAS H. MACDONALD, Vice-president
for Traffic and Transportation

MRS. GEORGE W. JAQUA, Vice-president
for Women's Activities

walks softly
carries
a big
stick




STOCK No. 1616 • EXECUTIVE OFFICER

Take a smart tip from old Teddy Roosevelt. No need to carry a chip on your shoulder or a ton on your feet just to keep your toes safe. For *built in* under the sleek, smooth toe of this handsome new Lehigh safety shoe is the famous Lockrim* steel toe box that's always prepared for trouble "just in case". Designed by Lehigh for the U. S. Navy after their famous dress shoe, a million ex-gobs will tell you how comfortable it feels... how smart it looks. Display it to your employees. They'll snap it up for foot-safety in the plant... dress wear outside!

LEHIGH

Division of the
ENDICOTT JOHNSON
CORPORATION

SAFETY SHOE COMPANY
ALLENTOWN, PA.



MEMORANDUM
TO: Safety Director
SUBJECT: How to Reduce
Costly Eye Injuries

MEMORANDUM
TO: General Manager
SUBJECT: Greater Profit
through Higher
production

EYE SAFETY is a **TWO-IN-ONE** program

No eye safety program is complete unless it is built on the basis of *protection plus correction*. Protection against the many hazards which can cause costly eye accidents. Correction, professionally-prescribed, for the 50% of workers whose vision needs refractive help if they are to see clearly . . . or safely. Call on your Bausch & Lomb distributor for prompt prescription service on industrial eyewear. Your safety record and your production record will improve.

Write for a copy of the new Bausch & Lomb catalog on industrial eyewear. It includes a highly informative discussion of the theory and design of protective industrial eyewear. It also describes the complete line of Bausch & Lomb Occupational Eyewear, the eyewear built to the highest quality standards. Bausch & Lomb Optical Co., 681-M St. Paul St., Rochester 2, N. Y.

BAUSCH & LOMB
Safety Eyewear

COPPUS "BLUE RIBBON" VENTILATORS

identified by the blue band

FOR WORKERS'

- Safety
- Health
- Comfort
- Efficiency

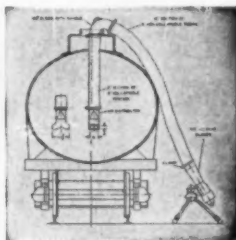
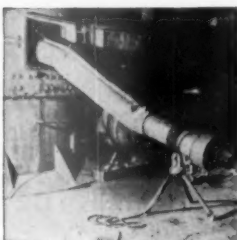
VANO Design "A" VENTILATOR



Vano Design "A" cooling interior of furnace, supplying fresh air through 10 feet of "Ventube" to provide safety and comfort during repair work.

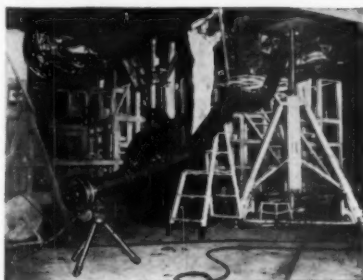
Vano Design "A" delivering fresh air to cable manhole, expelling sewer gas, making entrance safe in a few minutes.

Vano Design "A" Ventilator plus a few accessories feeds large air volume into tank car, driving out fumes, stagnant or hot air for workers' safety and comfort.



Vano Design "A" supplying fresh air in Reactor Room of Synthetic Rubber Plant.

Vano Design "A" Ventilator supplying fresh air to men working in wing compartments, fuselages, etc.



Powered by a 1/2 hp motor, and equipped with the exclusive Coppus axial-flow propeller-type fan, this general-purpose blower delivers 1500 CFM of fresh air. It supplies ventilation for tanks, tank cars, drums, vats, underground cable manholes, pipe galleries, airplane wing compartments and fuselages, and other confined places. Weighs only 103 lbs. Uses 8"-diameter flexible canvas tubing ("Ventube").

VANO DESIGN "C"



VENTILATOR-EXHAUSTER



Vano Design "C" equipped with 8" discharge tubing removing welding fumes.

Vano Design "C" equipped with two suction lines removing welding fumes for operators' safety.



For withdrawing welding fumes from confined places or directly from the welding rod ... or for expelling fumes or hot air from enclosed vessels. You can get it with 8" suction inlet for 8" non-collapsible tubing ... or with multiple inlet nozzles for 5", 4" or 3" suction hose. The discharge outlet takes 8" "Ventube". Powered by a 1/2 hp motor, it weighs only 85 lbs.

COPPUS ENGINEERING CORP., 121 PARK AVENUE, WORCESTER 2, MASS.

Please send information on the Blowers that clear the air for Action.

- | | | |
|---|--|---|
| <input type="checkbox"/> in tanks, tank cars, drums, etc. | <input type="checkbox"/> on steam-heated rubber processes. | <input type="checkbox"/> general man cooling. |
| <input type="checkbox"/> in underground cable manholes. | <input type="checkbox"/> on boiler repair jobs. | <input type="checkbox"/> around cracking stills. |
| <input type="checkbox"/> in airplane fuselages, wings, etc. | COOLING: | <input type="checkbox"/> exhausting welding fumes. |
| <input type="checkbox"/> on coke ovens. | <input type="checkbox"/> motors, generators, switchboards. | <input type="checkbox"/> stirring up stagnant air wherever men are working or material is drying. |
| | <input type="checkbox"/> wires and sheets. | |

NAME.....

COMPANY.....

ADDRESS.....

CITY.....

(Write here any special ventilating problem you may have.)

COPPUS "BLUE RIBBON" PRODUCTS—Designed for Your Industry, Engineered for You

Electrical HAZARD SIGNS



KNOCKED OUT by HY VOLT!

WHEN Hy Volt hits a man he stays hit . . . usually injured, often killed.

For while Electricity serves virtually every Industrial need, it is only with care and experience . . . and constant warning . . . that workers are taught to safeguard themselves against such accidents.

STONEHOUSE SIGNS

For Accident Prevention.

Many more Electrical Hazard signs are shown in our Catalog No. 8. It's free on request.

help to educate, warn, safeguard those who work with and around Electrical equipment. Post them for greater safety.

Stonehouse
MANUFACTURERS

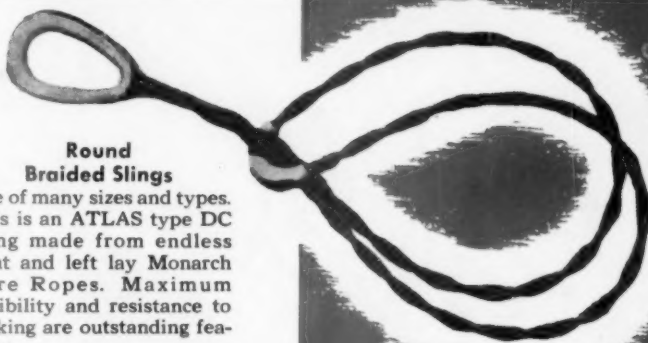
SIGNS, INC. Stonehouse Bldg. • 9th at Larimer • Denver 4, Colorado

"Stonehouse Signs Since 1863"



ACCIDENT PREVENTION SIGNS IN STANDARD COLORS AND DESIGNS

There's a MACWHYTE Sling

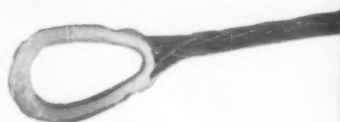


Round Braided Slings

One of many sizes and types. This is an ATLAS type DC Sling made from endless right and left lay Monarch Wire Ropes. Maximum flexibility and resistance to kinking are outstanding features.

Flat Braided Slings

This is a DREW type 5 Sling available in many sizes and assemblies. The DREW Sling is made from one endless Monarch Wire Rope—very flexible and kink resistant.

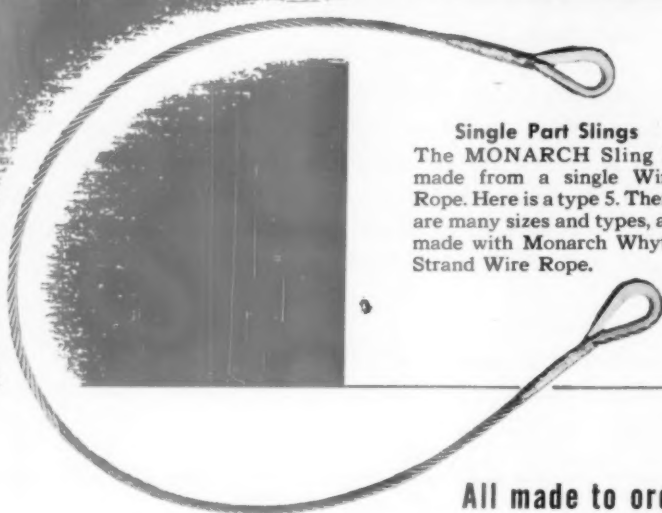


That's the right sling



Single Part Slings

The MONARCH Sling is made from a single Wire Rope. Here is a type 5. There are many sizes and types, all made with Monarch Whyte Strand Wire Rope.



For safe handling

All made to order for greatest safety

It pays to use slings made special to your order. Because Macwhyte Company makes a great variety of sizes and types in any length needed, you are assured of getting the best for your needs. Our sling engineers will give you the benefit of their experience in recommending slings for hundreds of satisfied users.

Just call any Macwhyte Distributor or write to Macwhyte Company Macwhyte Company, 2902 Fourteenth Avenue, Kenosha, Wisconsin Manufacturers of Internally Lubricated PREformed Wire Rope, Braided Wire Rope Slings, Aircraft Cable and Assemblies, Monel Metal and Stainless Steel Wire Rope. Distributors throughout the U.S.A. and other countries. Mill Depots in the following cities: New York, Pittsburgh, Chicago, Minneapolis, Fort Worth, Portland, Seattle, San Francisco, Los Angeles.

990-2

For cranes and hoists use
PREformed
MONARCH WHYTE STRAND CRANE
ROPE made by MACWHYTE
Company

 Member National Safety Council



Safety Facts



at YOUR finger tips

For quick reference—sure-fire solutions to your safety problems, there's no beating a set of fact-filled Safe Practices and Health Practices Pamphlets.

These pamphlets are the end-products of 37 years of industrial safety experience. They are prepared through the cooperative efforts of hundred of Council member companies. Each pamphlet goes through a careful process of criticism, review, and revision by qualified experts before publication. The safe practices recommended are based on tested methods that have been proven successful.

When the chips are down . . . when your workers' safety, health, possibly their lives depend on HOW FAST you can come up with the answer—you'll be glad you invested in this valuable library of safety. Order your set TODAY.

MEMBER PRICES

A complete set of 86 General Safe Practices Pamphlets and 12 Health Practices Pamphlets, carefully indexed for easy reference, in 4 sturdy binders costs only:

1 to 9 sets \$33.00 each **10 or more sets \$32.00 each**

Individual Pamphlets, single title or assorted:

1 to 9 copies	.40¢ each
10 to 99 copies	.35¢ each
100 to 999 copies	.30¢ each
1000 or more copies	.29¢ each

Binders only

Set of 4 binders	\$8.00
Single binder	2.50

The Industrial Safety Series pamphlets, relating to the hazards of special industries are not included in the complete set but may be purchased at the above prices for individual pamphlets.

Non-member prices are double Member prices.

NATIONAL SAFETY COUNCIL

SAFE PRACTICES PAMPHLETS

1. Ladders 1939
2. Stairs and Ramps 1942
3. Steam Boilers—Operation 1939
4. Overhead Traveling Cranes 1939
5. Fiber Rope 1935
11. Floors and Flooring 1947
12. Scaffolds 1945
13. Grinding Wheels 1948
14. Goggles 1940
15. Elevators 1944
16. Protective Clothing 1941
17. Plant Yards and Grounds 1938
18. Power Presses 1942
19. Exits, Fire Alarms and Fire Drills 1943
20. Woodworking Machinery and Equipment 1939
21. Industrial Accident Records and Analysis 1946
22. Industrial Shop Lighting 1941
23. Gas Welding and Flame Cutting 1941
24. Fire Extinguishment 1941
25. Acids and Caustics 1941
26. Wire Rope 1937
27. Industrial Sanitation (Drinking Water, Wash and Locker Rooms and Toilet Facilities) 1941
29. Electric Equipment in Industrial Plants 1938
31. Industrial Fire Causes and Prevention 1939
32. Exhaust Systems 1939
33. Hoisting Apparatus 1939
34. Industrial Explosion Hazards (Gases, Vapors and Flammable Liquids) 1941
35. Conveyors 1939
36. Fire Brigades 1942
37. Industrial Ventilation 1939
38. Safety Posters and Bulletin Boards 1936
39. Machine Shops 1945
40. Suggestion Systems 1941
41. Hand Tools 1948
42. Organizing a Complete Industrial Safety Program 1936
44. Cutting Oils and Emulsions 1941
45. Industrial Housekeeping 1941
46. Fuel Handling, Storing and Firing 1940
47. Compressed Air Machinery and Equipment 1939
48. Railroads in Industrial Plants 1942
49. Steam Boilers—Construction and Equipment 1939
50. Reducing Fatigue 1940
52. Static Electricity 1942
53. Checking Plans and Specifications for Safety 1942
54. Manual Handling of Materials 1947
55. Industrial Power Trucks and Tractors 1940
59. Warehouses and Shipping Rooms 1942
60. Chemical Laboratories 1942
61. Mechanical Refrigeration 1937
64. Respiratory Protective Equipment 1938
65. Teaching Safety to New Employees 1941
67. Maintaining Interest in Safety 1948
68. Pressure Vessels—Fired and Unfired Steam Jacketed Vessels, Digesters, Stills, Blow Cases, Autoclaves, etc. 1939
70. Maintenance and Repair Men 1944
71. Chlorine 1936
72. Safety Committees 1939
73. Foundries 1938
74. Safety Contests 1946
75. Safety Inspections 1941
76. Portable Electric Hand Tools 1940
77. Safety Meetings 1937
78. Mathematical Tables and Data for the Safety Engineer 1939
(Revised 1944; not copyrighted)
80. Industrial Safety Rules—Their Formulation and Use 1941
81. Industrial Accident Prevention Signs 1943
84. The Safety Man in Industry 1939
85. Forging and Hot Metal Stamping 1934
87. Safety in the Medium-Sized Plant 1932
88. Identification and Piping Systems 1937
91. Spray Coating 1940
93. Topics for Safety Meetings 1943
95. Compressed Gases 1939
96. Industrial Power Departments 1938
97. Pulverized Coal Systems 1940
98. Use and Care of Hoisting Chains 1943
99. Falls and Workers 1946
100. Safety Stunts—Part I 1935
101. Safety Stunts—Part II 1937
102. Off-the-Job Accidents 1938
103. Purchasing for Safety 1939
104. Dust Explosions 1941
105. Electric Welding 1941
106. Conservation of Personal Protective Equipment 1943
107. Women in Industry 1942
108. Office Safety 1943
109. Safety Observation Safety 1947
110. Mechanical Power Transmission Apparatus 1949

HEALTH PRACTICES PAMPHLETS

3. Lead 1942
4. Industrial Dust 1939
5. Health Service in Industry 1939
7. Carbon Monoxide 1941
8. First Aid Service in Industry 1949
9. Gases and Vapors 1942
10. Skin Affections 1942
11. Nursing Service in Industry 1947
16. Physical Medicine in Industry 1946
17. Back Injuries 1936
18. Lighting and Health 1941
19. Illness in Industry 1946

PAMPHLETS FOR SPECIAL INDUSTRIES

- Au-1 Heat Treating 1938
- Au-2 Motor Block Testing 1945
- Ce-1 Mercantile Establishments 1941
- Cem-1 Cement Rock Quarrying and Crushing 1943
- Cem-2 Raw and Finished Cement Mill Grinding 1941
- Cem-3 Cement Burning 1940
- Cem-4 Cement Mill Shops 1941
- Cem-5 Storing, Packing and Shipping Cement 1940
- Cem-6 Cement Mill Yards and Railroads 1940
- Chem-1 Chemical Piping Lines and Tanks 1941
- Chem-2 Fume Poisoning from Nitric and Mixed Acid 1940
- Chem-3 Chemical Burns 1937
- Chem-5 Pyroxylin Lacquer Manufacture 1941
- Chem-6 Cyanide Compounds 1940
- Chem-7 Industrial Waste Disposal and Bibliography on Chemical Wastes 1948
- Con-1 Building Construction 1942
- Con-3 Excavation Work 1942
- Con-4 Pile Driving 1948
- D-6 Garages and Repair Shops 1941
- F-2 Candy, Chocolate and Cocoa Manufacture 1929
- F-3 Bakery Operations 1941
- F-4 Milk Bottling Plants 1939
- F-5 Macaroni Plants 1930
- Hy-1 State Highway Employees 1943
- M-2 Mine Rescue Work 1937
- Mar-2 Marine Boilers 1938
- Me-2 Blast Furnaces 1938
- Me-4 Rod Mills 1930
- Mun-1 Public Employees 1945
- PP-2 Paper Box Manufacturing 1936
- PP-3 Pulpwood Logging 1947
- PT-1 Leather Tanneries 1942
- PU-1 Protecting Public Utility Employees on Streets and Highways 1938
- PU-3 Linemen's Rubber Protective Equipment 1943
- PU-4 Handling of Poles 1939
- PU-5 Atmospheric Conditions in Underground Structures 1947
- Ref-1 Ice Delivery 1940
- Ref-2 Ice Processing Machines 1941
- RR-1 Railroad Track Cars (Hand and Motor) 1944
- Ru-1—Part I Compounding Materials Used in the Rubber Industry 1945
- Ru-2 Vulcanizers and Devulcanizers 1949
- T-1 Cotton Mills 1947
- Voc-1 Coordinating Safety in Industrial and Vocational Training Programs 1941
- W-2 Operating Commercial Lumberyards 1932

20 N. WACKER DRIVE CHICAGO ILLINOIS

For Industrial First Aid

Mercurochrome



Preventing infection is important in reducing lost time due to accidents. Even minor wounds may lead to serious infection and should receive proper first aid treatment.

Mercurochrome* (H. W. & D. Brand of merbromin, dibromoxymercurifluorescein-sodium) is especially suitable for first aid purposes. The 2% aqueous solution is not irritating or toxic in wounds.

Minor injuries are reported promptly when Mercurochrome is the routine antiseptic because treatment is not painful.

Other advantages are that Mercurochrome solutions keep indefinitely and the color shows where it has been applied.

Mercurochrome is accepted by the Council on Pharmacy and Chemistry of the American Medical Association.

* Reg. U. S. Pat. Off.

HYNSON, WESTCOTT & DUNNING, Inc.



BALTIMORE 1, MARYLAND



1949 Was Another Good Year for Telephone Users



MORE SERVICE FOR MORE PEOPLE—Nearly 2,000,000 telephones were added to the Bell System in 1949. This meant service not only for many people who did not have a telephone before but it also increased the value and usefulness of your own particular telephone. You can call many more people—and many more can call you. There are now more than 50% more Bell telephones than at the end of the war.

BETTER LOCAL SERVICE—The over-all quality of telephone service continued to improve in 1949 and it keeps right on getting better. There's faster, clearer, more accurate service on millions of local calls.



IMPROVEMENTS IN LONG DISTANCE

Long Distance grew steadily better in 1949. The average time to complete out-of-town calls is now down to little more than a minute and a half. Nine out of ten calls go through while you hold the line. Over many routes, the Long Distance operator dials the distant telephone direct. It's faster, friendly, courteous service all the way.



275,000 NEW RURAL TELEPHONES were added by the Bell System in 1949. 1,300,000 have been added since the war—a truly remarkable record of rural development by the Bell System. Great gains were made also in the quality of service. Fewer parties on the line. Many thousands of new-type telephones put in. A higher proportion of our farmers have telephones than in any other country in the world.

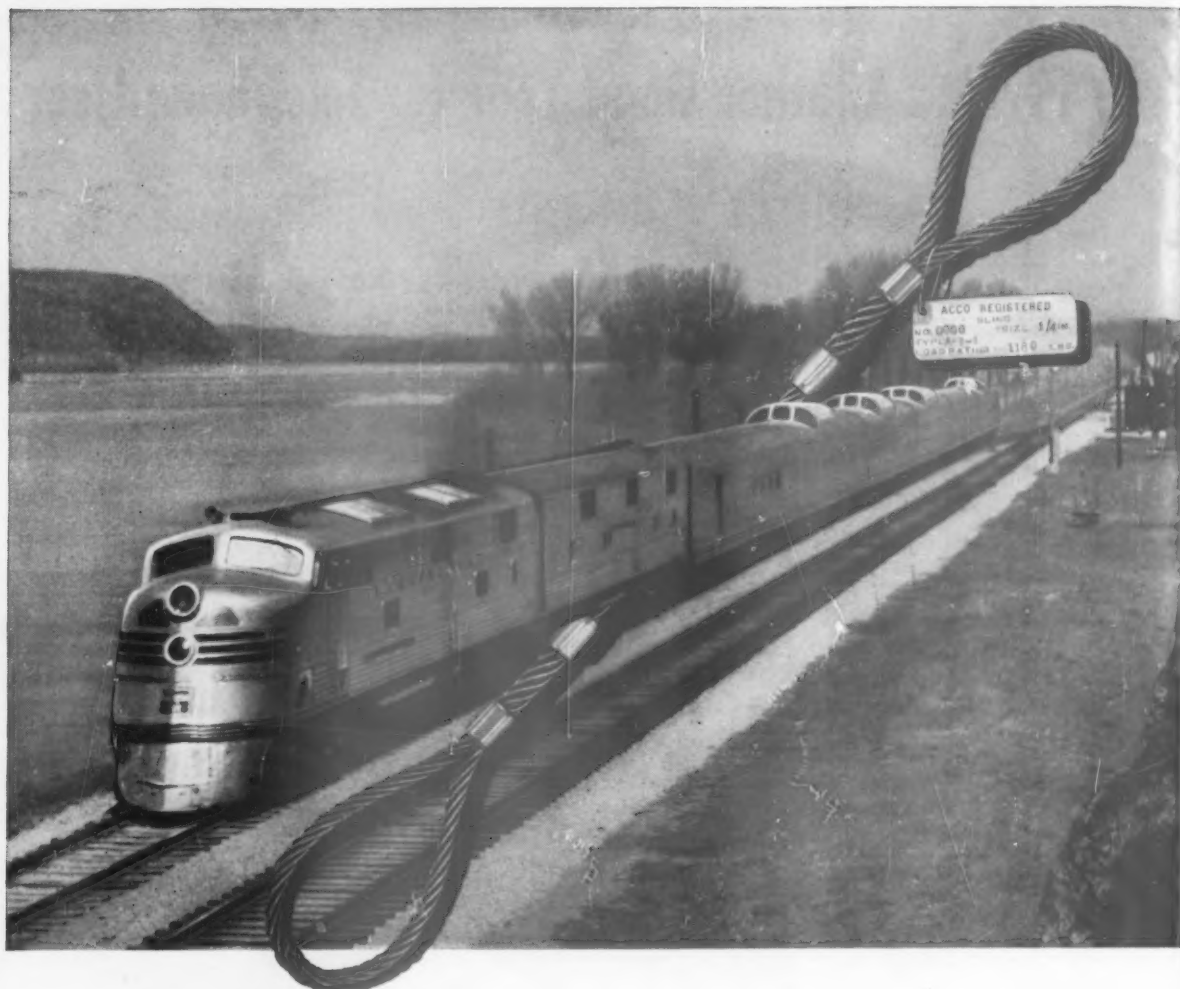
CONTRIBUTION TO PROSPERITY—All of this expansion and improvement in telephone service provided work and wages for many people outside the telephone business.

More than \$1,000,000,000 was put into new facilities. Western Electric—the manufacturing unit of the Bell System—bought from 23,000 different concerns in 2500 cities and towns throughout the country.



BELL TELEPHONE SYSTEM—The best and the most telephone service at the lowest possible price.





SLINGS as Modern as today's Streamlined Trains

NOW YOU CAN GET factory-made wire rope slings that are as modern as today's streamlined trains. ACCO Registered Wire Rope Slings are rated to provide positive safety factors of 5 to 1. They are furnished with the ACCO-LOC Splice which develops the full strength of the rope. Their neat, compact, safe endings can be snubbed close. Use any fittings—or use them plain. Use them for basket, bridle or choker hitches. Use them to reduce your material handling costs.

Railroads, industrial plants, contractors, public

utilities, every business that uses slings will find savings in adopting ACCO Registered Wire Rope Slings. Safety engineers acknowledge their superiority and build complete, safe material-handling programs on their known warranted strengths.

Furnished in Strand-Laid, Cable-Laid, and 6 and 8-part Braided, you can get the correct ACCO Registered Wire Rope Sling for any lifting job. ACCO's Stock Sling Service offers you further savings in time and cost. Write today for full information.

MEMBER THE NATIONAL SAFETY COUNCIL



ACCO

Wilkes-Barre, Pa., Chicago, Denver, Houston, Los Angeles, New York, Philadelphia,
Pittsburgh, San Francisco, Bridgeport, Conn.

**WIRE ROPE SLING DEPARTMENT
AMERICAN CHAIN & CABLE**



In Business for Your Safety



"Easy on the foot and eye.
For comfort plus protection,
it's both low and high..."

NEW
Iron Age
Hi-Lo
SAFETY SHOE



No. 600
C 5-14
D 5-14
E 5-14

TESTED AND PROVED IN HUNDREDS OF PLANTS

TYPICAL COMMENTS FROM SAFETY MEN

"The only really new safety shoe
I've seen in years"
"Never believed a safety shoe
could be so comfortable"
"... more support than an oxford, more
comfortable than a high shoe"
"Never went for half measures but
your 'in-between' shoe really is great"
"We think your Hi-Lo is the most
practical safety shoe yet"

QUALITY FEATURES

One piece moccasin vamp.
"No-seam" quarter, full gusset.
Oil-resistant Neocord sole and heel.
Soft, pliable elk uppers.
Rich tone, cordovan brown finish.

New Iron Age Hi-Lo Safety Shoes are in
stock and ready for shipment. Send your
order now—satisfaction guaranteed.



*The Safety Shoe
for Industrial America*

Iron Age DIVISION
H. CHILDS & CO., INC., PITTSBURGH 22, PA.



B R E C K

BRECK pH7 PROTECTIVE CREAM GUARDS AGAINST HARSH INDUSTRIAL MATERIALS

Skin irritations caused by working with industrial materials can be prevented with adequate skin protection. Breck pH7 Protective Cream spread onto the skin of the hands, face or arms will form a protective film that helps prevent direct contact with many harsh industrial materials. People working with cooling lubricants, cutting compounds, lime, paint, rubber dust and petroleum solvents will find that these materials are easier to remove after using Breck pH7 Protective Cream. The new dispenser top for the pound jar of Breck pH7 Protective Cream makes application easier, more sanitary, and saves the worker time.

Request the new dispenser top with your next order of the pound size Breck pH7 Protective Cream.

JOHN H. BRECK, INC. • MANUFACTURING CHEMISTS • SPRINGFIELD 1, MASSACHUSETTS
NEW YORK • SAN FRANCISCO • OTTAWA, CANADA

canvas at its

best

resists

FIRE
WATER
WEATHER
MILDEW
WEAR

FIRE-CHIEF products are manufactured under U. S. Patents No. 2,044,176, No. 2,299,612 and other patents, all owned by William E. Hooper & Sons Co.

WM. E. HOOPER & SONS CO.

General Sales Offices:

New York
320 Broadway

PHILADELPHIA
Juniper & Cherry Sts.

Chicago
300 W. Adams St.

Hooperwood Mills: Woodberry, Baltimore, Md.



There's always something NEW at HY-TEST!

Resist-Oil Crepe Sole *Safety Oxford*

Put spring in their step and steel
over their toes in this dress-type
safety oxford. Its resist-oil sole makes
it ideal for all jobs involving
oil-spattered floors and pavements.
Write for free catalog.



H714 — Men's Burgundy
moccasin blucher oxford,
Resist-oil crepe sole and heel.

Insure Workers' Feet in Sure Protection

HY-TEST SAFETY SHOES

THE WORLD'S LARGEST SELLING SAFETY SHOE

HY-TEST DIV: INTERNATIONAL SHOE COMPANY • SAINT LOUIS 3, MISSOURI

New York Office — 225 W. 34th St. • EASTERN OFFICE — Manchester, N. H.



NATIONAL SAFETY NEWS

JANUARY, 1950

Resolutions for Three Men

CUSTOM makes the New Year the time for making good resolutions. The cynics tell us that few such resolutions survive the bleak dawn of January 2. I am not so cynical. I sincerely believe that if you will make one of the resolutions below your own property, it will serve you well the next 12 months.

For the Corporation President

I resolve:

To make an analysis of our corporate accident record and the measures being taken to improve it.

To consider carefully whether we are giving safety activities moral and financial resources adequate to deal with a problem of this magnitude, and whether our attack on accidents is aimed at the most important targets and is conducted with maximum effectiveness.

To inform the board of directors of my findings and to convince them of the importance of intensive accident prevention work.

To make my continuing interest in accident prevention felt by my top operating personnel in unequivocal terms throughout the year. Obviously, I must leave details of execution of the program to these men, but I must make it clear that safety work is something I consider important and on which I expect regular reports—and progress.

To bear in mind that no supplier can be efficient unless he also has a sound safety program in his organization and to use my influence as a purchaser to encourage and aid in the development of such programs in our suppliers' plants.

To accept as an obligation to my country a share of the job of organizing off-the-job safety

work, recognizing the fact that our employees and customers—and my own family—are exposed constantly to hazards on the street and in the home.

For the Plant Superintendent

I resolve:

To survey the physical arrangements and equipment of my plant to spot hazard-producing conditions.

To work out, with my production engineers and safety staff, revisions of operations designed to eliminate, as far as possible, those operations which have been demonstrated to produce a large number of accidents.

To make a cost analysis of accidents and accident prevention activities, and to report the results of this analysis to the corporation executives, with definite proposals for increased safety expenditures where they are needed.

To make safety a part of the agenda for every meeting of departmental foremen, making it clear to these men that I consider accident prevention one of their major responsibilities.

To develop a constant interchange of ideas between my safety staff and my production staff, recognizing that each has a contribution to make to the other's understanding of our problem.

To take an active part in community off-the-job safety work.

For the Safety Director

I resolve:

To try, with all the skill and energy I can bring to the job, to convince management of the wisdom of the resolutions presented above!

Ned H. Dearborn



An Outstanding Example of Air Force Economy

By W. STUART SYMINGTON

Manpower and dollars for national defense are being conserved by the Ground Safety Program

THE Ground Safety Program of the Department of the Air Force furnishes an outstanding example of the practical measures taken by the Air Force to assure economy while developing its efficiency as a member of the national defense team. The objective of the program is to reduce the losses of manpower and materiel resulting from avoidable accidents. The result of the program is a measurable contribution to our over-all effort to gain the maximum defense for each tax dollar spent.

Sound management is a key to success in any program. In the Department of the Air Force the Assistant Secretary of the Air Force for Management is responsible for policy supervision. A Comptroller has been named in the Air Force to establish budget-

ing and accounting procedures comparable to the best in private enterprise. The Deputy Chief of Staff, Personnel, has an Assistant for Ground Safety who is responsible for the application of accident prevention measures through the Ground Safety Program. Throughout the Department and at every echelon of the Air Force, civilian and military specialists in Ground Safety and other fields are exercising managerial responsibilities in achieving the efficient and economical use of funds which the taxpayers, through their Congress, have made available.

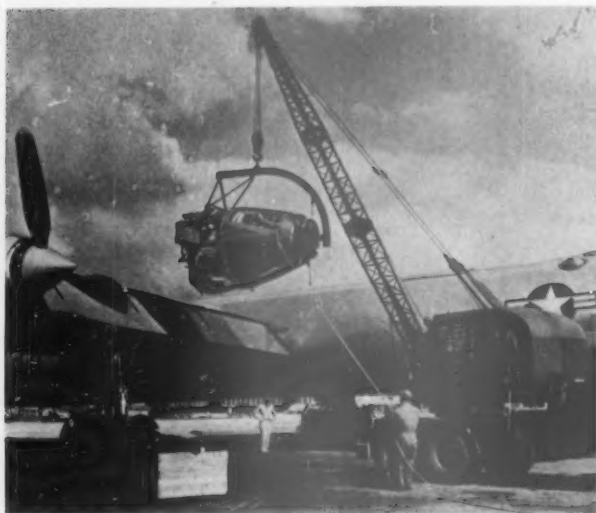
Accident prevention measures in the Air Force are based on techniques consistent with the best practices in private industry, modified to meet local requirements and conditions peculiar to avia-



Before becoming Secretary of the Department of the Air Force in 1947, Hon. W. Stuart Symington has filled several important executive posts in industry. In 1945 he was called to Washington to become Surplus Property Administrator and the following year was appointed Assistant Secretary of War for Air.

tion. Likewise in keeping with modern business practices is the recently instituted "Accident Cost Accounting System." The accounting procedures employed permit the evaluation and comparison of accident prevention measures on the basis of a per capita cost per accident. Progress may be determined and accident losses calculated over a representative period of time in terms of dollars and cents.

The conditions under which civilian employees of the Air Force are hospitalized and receive compensation when injured differ from comparable conditions applicable to military personnel. Civilian employees receive these benefits only when injuries are incurred in the actual course of their employment. Military personnel, however, are entitled to



Lifting one of the huge engines of a B-36 into place. Ground crewmen controlling tag lines guide the engine safely into position. Especially designed rigid sling is used.

hospitalization benefits regardless of the time or place of injury, on or off base, on or off duty. Thus, the Air Force Ground Safety Program must function effectively throughout the twenty-four hours of every day. In this respect the Air Force is confronted with a problem not encountered in private industry.

Before 1943 no specific program of ground safety designated to indicate cost data existed in the Air Force and it was difficult to determine the ratio of accidents to cost. A program was established in 1943, however, and progressed consistently. In 1948 greatly improved reporting and cost accounting methods were developed. Increased information about the number, nature, and cost of accidents is now available. In the future, when cost statistics have

been collected over a long enough period of time, it will be possible to measure the success of the program with accuracy.

We know, already, that the decrease in the number of accidents in one year to motor vehicles alone has resulted in considerable savings. In 1947 Air Force motor vehicle accidents caused personal injury and material damage that totaled \$872,000. Although miles of operation increased in 1948, the total cost of accidents was reduced to \$600,000 by a reduction in the number of accidents. Such a saving of almost one-quarter of a million dollars becomes, when multiplied by the number of economy practices in effect, millions of dollars saved annually.

As the Ground Safety Program is designed to prevent accidents incident to Air Force ground op-

erations, so the Flying Safety Program under the Inspector General is designed to prevent accidents incident to flight. The Flying Safety Program is the more specialized of the two, but the programs are complementary and together provide safety coverage for all Air Force personnel and equipment, whether on the ground or in the air. They function separately, but share the common objective of economy of defense and efficiency of operation through the prevention of accidents.

When equipment, property, or supplies are accidentally damaged, a direct economic loss is sustained. If the material damaged is in short supply, the effect of damage or loss on a military operation may be serious indeed. But when accidents cause injury, hardships or death to human beings, the loss exceeds measurement in terms of dollars, or military efficiency.

Thus the Air Force has not only an obligation to the taxpayer to achieve economy and provide maximum defense by making every tax dollar count, but it has the further moral obligation of taking proper care of the human beings who make its operations possible. The ultimate goal of air power is the establishment of peace; an immediate goal is the preservation of the lives of the men and women by whom the peace is to be enjoyed.



Left: Installing new wheel on a B-29. The wheel dolly aids safe and speedy wheel changes.

Lower left: Painting number and markings on a B-36. Work stand with guard railings provides several safe working platforms.

Right: Horizontal extension of a maintenance stand for working on top turrets. The stand was designed and built at Clovis, N. M.





Looking Back ... and Ahead

By HAROLD C. ZULAUF

HAROLD C. ZULAUF is Vice-President Operations and Industrial Relations, Alexander Smith & Sons Carpet Company, Yonkers, N. Y. This article has been condensed from an address before the Top Management in Safety Session, 37th National Safety Congress.

Against the background of the past our present accomplishments in safety seem commendable. But how will our record look to future generations?

IF HE is really honest, any individual who has been part of management for any length of time should shudder in looking at the past.

However, I found considerable latitude in looking into the past and some of the facts might not make us look too bad. As you know, the kings who built the pyramids had an enormous supply of unskilled, docile labor. So great was the supply that they did not care how many they "used up" in the process of quarrying, transporting and building.

Of course, that is a very general statement. However, Adolph Erman in *Life in Ancient Egypt* comments "in digging the Mahmudieh Canal in modern times, 250,000 peasants were employed for a year and 20,000 sacrificed to the undertaking." I also find a quotation, "under Justinian we find the beginning of freedom and association among the workers."

Looking further into the past I find an interesting statement signed by King Rotharis dated 643 unearthed by a searcher of ancient manuscripts that indicated that this edict was concerned with risks and injuries payment of damage, and which party should

bear the blame. This was probably the beginning of the National Safety Council, although their records only admit to 1912 or 1913.

As I skip ahead a few hundred years, still looking into the past, it is quite obvious that safety must have run into some roadblocks. Take a brief look at coal mines, which is not in my particular field. However, let's take a look at it. Gas; fire damp; black damp; timbering; single mine entrances; dogs helping miners and receiving better care than the men. So I looked for something more encouraging in the past. I took a look at the steel mills. In the past it was a happy hunting ground for undertakers. The past was also filled with disastrous railroad wrecks and fires.

I realize the progress made by many men in all of the categories to which I have referred. However, I would serve no good purpose by reviewing the things that occurred at one time, just because part of my subject is the past, but I must say something about manufacturing plants, which had a very bad reputation. We must be honest enough to admit long hours, low wages, and unguarded machinery, with child labor, as part of our

sorry history. It was common practice, if an employee had his finger cut off, to fire him. He could sue. He didn't have much chance of winning.

Quite different is the situation today. The employee is hospitalized, given complete medical care, and payment made for the damage done to him. By our lack of vision in the past we were laying the groundwork which destroyed goodwill between employer and employee, which we are striving to regain with all the ability that we can muster. So, let's try to forget about the past. Management can find very little to be proud of in such a review.

As I find it necessary from time to time to discuss with young men in training practices that were common in industry before they were born, I feel somewhat ashamed to admit that some of the things we did as standard procedure had none of the basic elements of fair play or human relations. Just remember those two words—human relations. You will hear more of them—whether in the field of safety, labor-management relations, or laws of all kinds in all countries.

So, brushing lightly over the

past, what are we doing today? Compared to past records, great strides have been made in the field of industrial safety, but, in my opinion, we have only scratched the surface. Some day the bright young men who will be holding down my job and your job will turn back to 1949 and say, "What were they trying to do—kill and maim everybody who was working in those days?" But we have a lot to be proud of in the progress that we have made.

Disraeli once said, "The health of the people is really the foundation upon which all their powers as a state depend." Many men and women have dedicated their lives in the interest of safety, and the results are a matter of record for anyone who wants to take the time and trouble to read them. I don't intend to give you any figures, as I am more interested in assisting in developing a continuing interest in safety, rather than quoting statistics. We have laws and regulations. We need more laws and regulations, but the greatest gain has been made through training rather than by discipline.

In plants that have made outstanding safety records you will invariably find someone in top management taking a real interest in the reduction of accidents. This pattern should be applied to every plant in the country. Those men are interested in the frequency rate of their particular industry, the number of fatalities, and accidents that cause loss of limbs and eyes, and then they really go to work to make the record of their particular plant a better one than the record of their industry.

If everyone makes his maximum contribution in the interest of industrial safety, the total figures will take care of themselves. The men who have contributed to the improvement of safety records are not being decorated for it, and they will never know all the individuals who have all their faculties today—people who might have been a statistics. Their reward will be principally the personal satisfaction for a job well done.

Gen. Henry A. Reninger, N S C Past President, Dies



HENRY A. RENINGER
1885-1949

BRIGADIER GENERAL HENRY A. RENINGER, a past president of the National Safety Council, died December 9 at his home in Allentown, Pa. Until failing health caused his retirement two years ago he was manager of the safety and welfare department of the Lehigh Portland Cement Company. He was an honorary life member of the National Safety Council and the American Society of Safety Engineers.

I think I am on safe ground to dip far enough into the past in order to tie my remarks in with the present to refer to President Truman's Conference on Industrial Safety. In the summer of 1948 the ground work was laid for the first conference on industrial safety ever called by a President of the United States. Under the able guidance of many men—including representatives of the National Safety Council and the American Society of Safety Engineers, the program developed. I was the hitchhiker of the group

General Reninger was born May 27, 1885. He received the degree of A. B. from Franklin & Marshall College, Lancaster, Pa., and entered the service of the Lehigh Portland Cement Company. Upon his return from military service in World War I he was placed in charge of the company's safety organization.

His interest in safety found expression in the National Safety Council, on whose executive committee he served from 1922 to 1947 and the Portland Cement Association's Accident Prevention Committee of which he was a member for many years.

In the National Safety Council he served as vice-president for five years, successively in charge of membership, local councils, and industrial safety, and was elected president for the year 1928-29.

He was an organizer of the Lehigh Valley Safety Council and its president for several years and he took a prominent part in the organization of other local councils throughout the country.

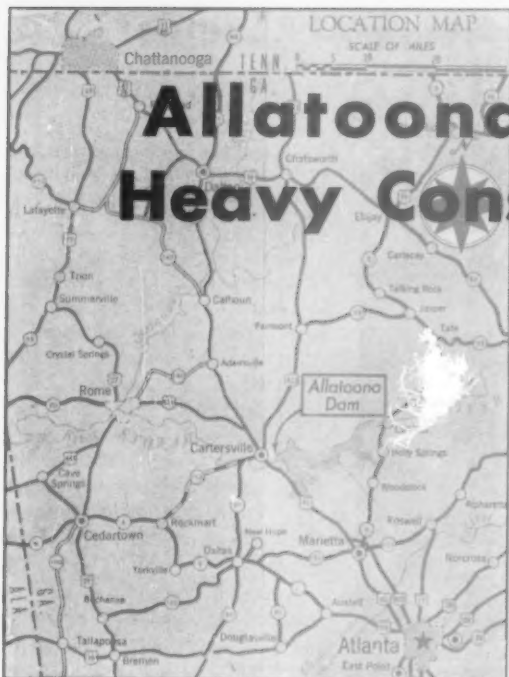
During World War II General Reninger served as assistant director for the Third Civilian Defense Region in charge of safety and fire protection.

Surviving are the widow, a daughter and two grandchildren.

and, for some reason, became chairman of the Committee on Labor-Management Cooperation for Safety. This conference developed throughout the Fall and Winter of 1948 and, in the Spring of 1949, some thousands of people found their way to Washington where President Truman opened the conference.

It was a revelation to me. Hundreds of men from colleges, universities, industry, labor, government and many other fields com-

—To page 79



Allatoona Dam—A Safe Heavy Construction Project

By LESTER H. WHITE

At least three fatalities would have been "par" on a heavy construction job like this one. But 600 men worked 3½ years without a death or a permanent disability

WHEN the Corps of Engineers first received the directive for construction of a thirty million dollar 186-foot high hydro-electric power dam near Cartersville, Georgia, our construction engineers predicted we would have from three to five men killed during the construction period. However, three and one half years later at the 1949 National Safety

Congress, K. L. Parker, project manager on behalf of National Constructors, received the first National Safety Council Award of Honor for Distinguished Service to Safety ever awarded to an individual construction contractor.

This award was in recognition of three and one-half years of construction with an average force of six hundred men, without a fatal

injury or any type of permanent disability. The frequency rate and severity rate for this contractor on the over-all job was 8.70 and .29, respectively.

This accomplishment was due in a great degree to two main factors: safety consciousness of top key officials of the contractor, and planning for safety.

The top officials of the con-

Left: Power house area. Well constructed ramps and runways are provided and material and debris are piled out of passageways and work areas. Scaffolds and runways have sub-



stantial handrails. Small tools and fittings were furnished from bins handled by cableway. Right: Concrete mixing plant with well-constructed stairways.





Northern portion of Allatoona Dam after removal of second stage cofferdam. Stairways are equipped with baffles and there are horizontal walkways at two levels. Cableway car-

riage is shown in upper central portion of photo. Form carpenter shop and public observation platform at at upper left. Form scaffolding is provided with handrails.

tractor were thoroughly sold on the benefits of an accident prevention program. They insisted that their foremen have a genuine interest in the safety of their men—and that they demonstrate this interest by their actions on the job. Foremen who were not in whole-hearted agreement with this policy and its application didn't last long on this job.

At the start of the job an accident prevention plan was prepared, after a thorough survey of site conditions and study of operation methods had been made. This plan was thoroughly discussed by officials of the contractor, government engineers, and key supervisory personnel of National Constructors. Thus all levels of supervision were aware from the

very beginning of the job of their part in the job accident prevention program, and all were working cooperatively toward a common goal. Advance planning for safety was utilized throughout the construction of this project as the various stages of construction progressed.

Early in the planning stage it was recognized that safe access to work areas was vital to a safe and smoothly functioning job. At this stage it was decided that stairs would be used for access to work areas instead of ladders wherever possible. During the course of construction the wisdom of this decision became more and more apparent. Although the stairs were installed primarily for accident prevention purposes, job efficiency and production were greatly enhanced. Stairways have some specific advantages. They are fixed and are thus known to all workmen and used regularly; time for ascending an descending to and from various work levels is materially reduced; and hand tools and light material can be safely

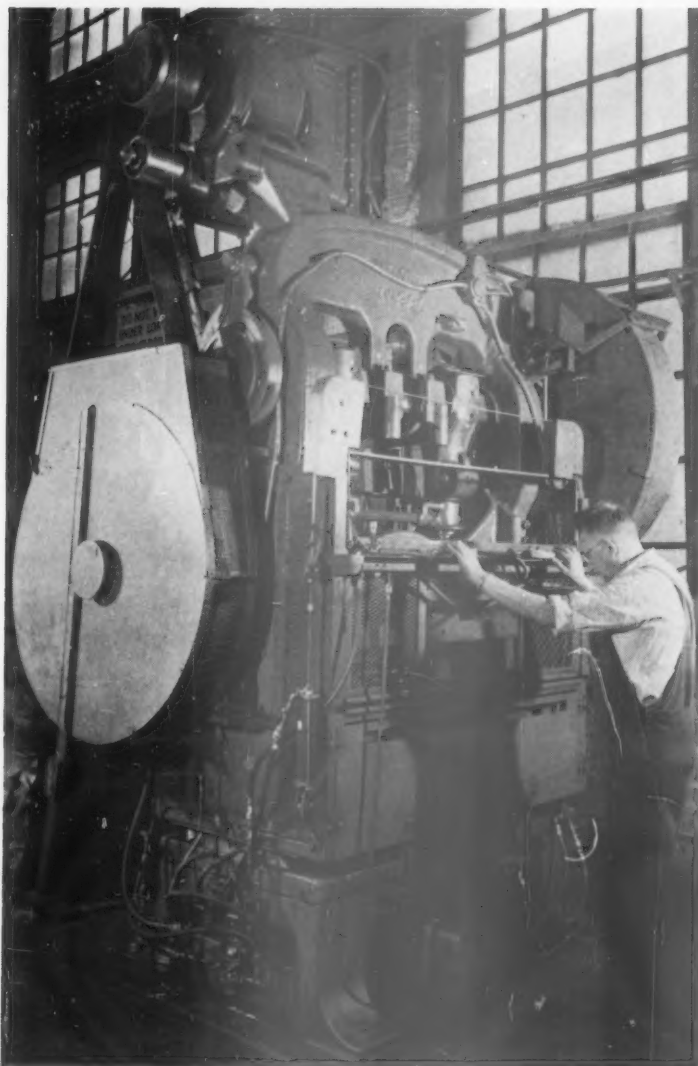
carried on stairs. There were no injuries resulting from use of stairs.

In jobs of this nature it is not possible to replace all ladders with stairways, consequently it was necessary to use many ladders for temporary access to work areas. These ladders were built in the project carpenter shop and were very substantially constructed. Two by four side rails with one by four steps were used. Two by eight strips were placed on each side rail between the steps, and these strips were covered with band steel stripping over each side rail. If for any reason the nails in a step pulled loose the band steel and strips would hold the step in place. A substantial quantity of ladders was kept on hand in the carpenter shop. With good ladders constantly available no jerry-built ladders could be found on this job.

Concrete monolithic construction requires the use of numerous form panels. Each of these panels

—To page 50

LESTER H. WHITE is Chief, Safety Branch, Corps of Engineers, Mobile District, Mobile, Ala. Assistance in the preparation of this article was rendered by William H. Duncan, formerly project safety engineer for the construction of Allatoona Dam and now District Safety Engineer for the Charleston, S. C. Engineer District.



A punch press which Allis-Chalmers set out to make one of the safest in the country. It has gate guard with two-hand control or foot control, the ram clutch being actuated by the gate guard. It is also arranged with a non-repeat device so that the gate guard will not raise until the crank has come to a complete stop. Air lines and air controls shown here are normally enclosed in the guard which has been removed to show details in the picture.

PUNCH PRESSES

Can Be Guarded

By R. F. THUMA

WE AT ALLIS CHALMERS are in the midst of a maintenance and guarding program for power presses. For several years we have been working on this program and it is now well beyond the preliminary stage. This article will describe the methods and some typical problems encountered.

The general machinery division at West Allis manufactures diversified equipment for industry. Special equipment is our bread and butter. Many of our large machines are built to customer's specifications. Therefore, we have relatively short runs, using diversified types of equipment.

For instance, in our plant we have 94 punch presses ranging from 5 to 225 tons capacity, and forming presses to 800 tons. Some are old, some are new. Production runs vary from a few hundred pieces to several hundred thousand. But none of our punch press work can be considered mass production. Therefore, relatively little work can use automatic feeds, material conveyors, etc.

Like most progressive concerns, Allis Chalmers has always been safety conscious. However, interpretation of safety has changed. Equipment that was at one time considered the last word for safe operation might be obsolete or downright dangerous today. As an example, at one time a complete bank of punch presses in one of our departments was equipped with solenoid-operated two-hand controls. At the time, they were something to brag about. Now we consider them definitely inadequate and believe they should be replaced when we have determined the type of control that best suits our conditions.

When the present health and safety organization was estab-

R. F. THUMA is Assistant Superintendent, Maintenance and Tools Section, General Machinery Division, Allis Chalmers Manufacturing Company, Milwaukee, Wis. This article has been adapted from a paper presented before the Power Press Section, NSC, at the 37th National Safety Congress.

Guarding is more than a mechanical problem. Results depend on all parties involved—supervision, the safety department, and the men who make guards

lished, a sincere effort was made to improve the guarding of punch presses and dies. They first attempted to deal directly with the department involved, usually through the foreman, even though the problem might be plant wide and affect other departments. They used existing equipment and suggested improvements, but soon found that progress was unsatisfactory. They then realized that others might have ideas and called in our insurance company. With the insurance company, they worked out a combination basket guard with an individual bottom plate to suit each die. This time the approach was made through the superintendents of the departments involved, who were very receptive to the ideas.

However, difficulties with this type of guard were encountered. Costs were high and a method

of keeping a record of the individual bottom plates to be used with the dies was difficult to evolve. Nor was the protection too satisfactory. However, the guard did get people interested and we received a suggestion from an employee for an adjustable sheet metal guard. This guard met with the approval of shop supervision. In most cases it could be adjusted so that it was relatively safe. However, there were too many adjustments and too much chance for that "personal touch." It required more supervision than was available.

In 1944 the West Allis Works Safety Council realized that satisfactory progress was not being made and appointed a punch press guard committee to investigate the problems. The committee included representatives from the Health and Safety Department, the shops

DAILY REPORT ON PUNCH PRESS		
Machine No. _____	Dept. _____	Date _____
Motor Starter _____		Time _____
Machine Guards _____		
Frame Inspection _____		
Machine Part Inspected	Defective	Operation Satisfactory
Clutch Linkage _____		
Clutch Air Cylinder _____		
Solenoid _____		
Linkage Adjustment _____		
Brake Adjustment _____		
Two Hand Control _____		
Gate Guard _____		
Die Guard _____		
Remarks _____		
Repairs to be made _____		
Press Inspector _____		
Foreman _____		
Repair Man _____		
Foreman _____		

Report on punch press to be filled out by inspector. Daily inspection, specified here, has not been found practical.

involved, and the various tool engineering departments.

The committee approached the problem with the following points in mind:

1. Standardization of guards.
2. Establishment of centralized control over fabrication and installation.
3. Coordination of die design to include safety factors.
4. A planned inspection and maintenance program.
5. Determination of cost of program.

Bi-weekly meetings were held which included visits to other plants and discussion of problems with insurance companies, manufacturers of equipment, and the State Industrial Commission. The committee then made the following recommendations:

1. Standardization of guards. The following types of guards were considered satisfactory:
 - a. Individual complete enclosure die guard.
 - b. Two-hand control with non-repeat device or continuous hold-down.
 - c. Gate guard in which closed gate actuates ram clutch.
2. Centralized control.
 - a. A guard department set up for each division.
 - b. The guarding department should come under the supervision of the maintenance



A difficult problem and an unusual application. Operation is blank, draw and pierce two holes in center. Draw is approximately $\frac{3}{8}$ inch. During drawing operation, stripper and stock move about $\frac{3}{8}$ inch. If a $\frac{3}{8}$ inch opening were allowed for stock and stock would move $\frac{3}{8}$ inch, then an opening $\frac{3}{4}$ inch high would be needed. This created a possible pinch point in the guard itself. So lower half of guard was placed on stripper plate instead of on lower die shoe. Then guard moves up and down with stock and stripper, maintaining maximum opening of $\frac{3}{8}$ inch.



Combination blanking and piercing die now in use. Note clear plastic upper and lower shields with $\frac{3}{8}$ -inch opening for stock. Plastic shields telescope without leaving pinch point. Maximum stroke of $2\frac{1}{2}$ inches is marked on the die. Guards extend around guide pins at rear so that it is practically impossible to get hand into die without approaching directly from the rear.

department, so that there would be undivided responsibilities in designing and building the die and fabrication and installation of the guard.

- c. Provision to be made to guard all new dies and all old dies as required.
 - d. The tool engineers to be responsible for operation of the Guard Department.
 - e. All guards to be approved by the Health and Safety Department.
3. Coordination of die design.
 - a. The die designer to be taught to think safety as well as production.
 - b. All dies to be ordered through the Tool Engineering Department.
 - c. A Die Data Sheet to facilitate designing of dies was suggested.
 - d. All dies to be approved by the Health and Safety Department.
 4. A planned inspection and maintenance program. The committee recommended that all punch presses be inspected periodically and provided an inspection sheet for this purpose.
 5. Determination of cost. The committee recommended that two men should work full time in the guard department for the first year and that two men should work full time in the guard department for the second year, and that \$5,000 be appropriated to develop and install two-hand control devices or gate guards on presses requiring them.

As might be expected, the program did not materialize 100 per cent. Some phases were very satisfactory. Others required considerable development. Still others failed completely.

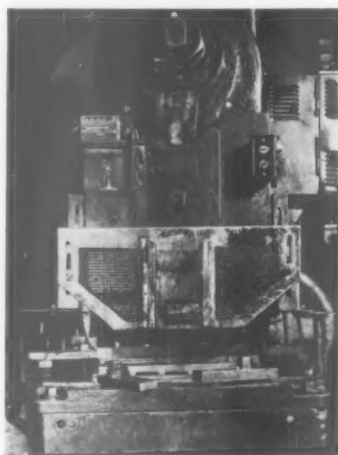
Individual Die Guards

The individual type plastic die guard is a single purpose guard built for a specific die, and is therefore better fitting. It also provides better visibility. Since no adjustments are required, there is no possibility of the operator adjusting the guard and making it unsafe. It also eliminates the possibility of operating a die without a guard. If the guard is on the die, the man is going to use it.

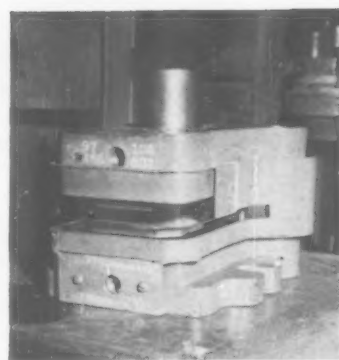
The problem of storage is also solved. The die and the guard are always ready. No elaborate system of records is required to determine which guard goes with which die.

The individual die guard also reduces set-up time. You put the die in the machine, guard and all, ready to use. We are convinced that the guard also reduces mental fatigue. A man can get closer to the die without risking his fingers.

The individual die guard, of course, has some disadvantages.



Type of guard originally developed. Screening and plastic were used to provide visibility. Numerous adjustments were needed, with possibility of poor adjustments. At the corners, the $\frac{3}{8}$ -inch maximum opening now specified is greatly exceeded.



Combination die with upper shield of steel and lower shield of plastic. Steel is cheaper, stronger and easier to fabricate than plastic. In this case satisfactory visibility is obtained by using plastic only on lower half of guard.

Although coverage is better, the guard is more expensive. There is the question of maintenance. No doubt there will be some breakage. We have been fortunate, but it is logical to expect that there will be some. There is also the question of cleaning. It is up to the operator or the set-up man to clean the plastic so that the operator can see what he is doing. There is also the maintenance that enters into the picture when the die is repaired or sharpened. As the die blocks are sharpened down the guard must be adjusted. Actually, I should say it must be altered. An individual die guard is not adjustable.

And the last disadvantage, which can be the most important; the individual die guard can increase the cost of the operation unless it is carefully designed. While we have not attempted to place individual guards on all dies, we have been almost 100 per cent successful with those we have attempted. However, there have been numerous cases where we have had to alter the guard after we placed it into the press so that it didn't hinder the operator and didn't affect the cost of the part.

Now I would like to point out some of the problems of application of an individual guard to a die. In the first place we normally consider that a maximum opening

of $\frac{3}{8}$ inches can be provided in the guard. Actually, we may allow a little more than that; for every inch that the nip point is removed from the guard itself we allow an extra $\frac{1}{8}$ inch to the opening. In other words if the nip point is 1 inch back from the shield of the guard we would allow $\frac{1}{2}$ inch opening instead $\frac{3}{8}$ inch. We must also watch that we don't manufacture pinch points in the guard itself. The guard must be designed for the maximum of stroke with which it will be used. A guard can be used on less stroke than that for which it is designed, but usually cannot be used on a press with more stroke. This is because the upper and lower shields of the guard must telescope. If the stroke is greater than the stroke for which the guard was designed, the parts of telescoping guard will separate allowing a pinch point which could be very dangerous.

We have found that we can apply the individual die guard with many types of feed. We have used strip stock and sheet stock, with feeds from the front, either side, or even from the rear with tongs on large sheets where the scrap and the part must be ejected and separated at the front. We have also found that we can use various types of ejections. Most common, of course, is to the rear when this is possible. This can be done by tilting the press, with air ejection, and by hand with a rod through a hole in front of the guard. We also sometimes eject from the side through a hole or slot and even through the front through a slot in the guard or through a hole in case of a formed piece. The hole, of course, can only be used on those dies where the dimensions of the hole are such that it would be impossible for the fingers to get in through the hole to a nip point.

It is obvious that the individual die guard cannot suit all applications. We have many large combination dies for which we have as yet been unable to design a

—To page 42

NSC PROFILES

DR. JOHN W. STUDEBAKER



The National Safety Council's newly-elected Vice-President for Schools and Colleges is a prominent figure in the field of education.

Dr. JOHN W. STUDEBAKER, former U. S. Commissioner of Education and now vice president and chairman of the editorial board of Scholastic Magazines, was born at McGregor, Iowa, June 10, 1887.

He received his Bachelor of Arts degree from Leander Clark College in 1910; A. M. from Columbia, 1917; and LL.D., from Drake U., 1934; Muhlenberg College, 1938; University of Maryland, 1945, and Boston U., 1948. He married Eleanor Regina Winberg on Christmas Day in 1909 and has one son, John Gordon Studebaker.

Dr. Studebaker earned his way through Leander Clark College by working as a union bricklayer. His career in education started in 1910 when he was appointed high school principal and athletic coach at Guthrie Center, Iowa. He was principal of the elementary and junior high school at Mason City 1911-14. Then he was assistant superintendent of Des Moines schools until 1920, when he was named superintendent.

Accepting appointment as United States Commissioner of Education May 18, 1934, on leave of absence from the Des Moines position, he resigned the Iowa job in February, 1937, and held the Federal post a total of 14 years.

Dr. Studebaker was national director of the Junior Red Cross during World War I. He is widely known for successful administrative abilities and knowledge of instructional techniques. He has been especially concerned in the welfare of handicapped children, in adult education, education by radio, conservation education, youth guidance and crime prevention and correction through education.

He organized, as part of the public school system of Des Moines, "the most comprehensive and carefully planned program of public forums ever inaugurated under public auspices." As Commissioner of Education he promoted public forum demonstrations throughout the United States. He organized national defense training programs in engineering colleges and vocational schools and in rural areas, 1940-41. These later were converted to war training, for which Congress made further appropriations.

He is a member of the National Education Association, the Religious Education Association, etc. He is a Methodist, a Mason (Shriner) and a Rotarian. His clubs include the Prairie and the Pow-wow. He is the author of "Plain Talk," "The American Way," and numerous text books, and co-author of a supplementary reading book series entitled, "Our Freedoms." He contributes to various publications on education.

His home is in New York City and his office is at Scholastic Magazines, 7 East 12th St., New York 3, N. Y.



The Highway Engineer Is a Safety Man

By C. L. MOTL

Road maintenance is hazardous work and protecting employees and the public is one of the engineer's responsibilities

DETAILS of road maintenance operation may vary with different organizations but the problems involved are essentially similar. All are confronted with the problem of maintaining the roads under their jurisdiction in as satisfactory a manner as possible with the available funds. And all administrators are confronted with the problem of utilizing men, materials and equipment to the best advantage.

Through engineering processes much emphasis has been placed on securing suitable equipment and materials and much care has been exercised in writing specifications. However, when it comes to personnel—the men needed to make the organization function — too little attention is paid to this im-

portant factor. And after men are employed too little interest is shown in their welfare.

Working on a highway is one



C. L. MOTL is Maintenance Engineer, Minnesota Department of Highways, St. Paul, Minn.

of the most hazardous occupations today, unless the employee is fortunate enough to operate equipment that protects him while performing his work. Also, while affording proper protection for the workmen, the road user must not be forgotten, since he is usually the other participant in an accident.

What the workman does with his equipment may make a considerable difference in the public attitude toward a highway and the organization charged with its upkeep. It would seem therefore, that the safety of an individual employed to work on the highway and the attitude of this individual toward the users of the highway, should be important in any maintenance administrator's long list of

←
Conspicuous signs on road marking machines protect both the highway employees and the motoring public.

objectives. It follows also that if the worker is to be impressed with the need for carrying on safely, the best way to start is to make him realize that the man in charge of the operation is also intensely interested in safety.

An employee in a large organization will seldom take the initiative in providing himself with an adequate set of regulations for carrying on his work safely; these must come from higher up. While there are some who might disregard those phases of safety that deal only with their personal comfort and convenience, it must also be borne in mind that accidents affect an individual adversely from an economic standpoint.

In the Minnesota Highway Department an active safety program has been carried on since 1930, and from the very beginning it was felt that the only way the program could produce results was to have the top administrators in the maintenance division take an active part in the program, including participation in meetings where safety was a major topic.

As time went on, the safety organizations and safety meetings became activities which, more than anything else, gave the employee a feeling that he was an essential part of a big organization. It seemed to give men a feeling that here was something in which they were on an equal footing with all other employees, regardless of position or title. This feeling has been stimulated through safety meetings and committees, and by encouraging and using employee suggestions.

I believe that the success of the safety campaigns in the maintenance division can be largely attributed to the fact that top administrators take an active and personal part in the safety movement. Safety records of employees often are a controlling factor in the selection of suitable candidates

for appointment to higher positions.

Previous to the inauguration of the safety organization, the Minnesota Highway Department was confronted with the usual perplexities of coping with industrial accidents, and motor vehicle accidents involving state-owned equipment. As might be expected, whenever equipment was involved in an accident with a highway user, it was usually assumed that the state equipment was at fault, until the contrary could be proved.

Most states have arrangements for compensating employees during lost time because of occupational injuries. Cumulatively, this may amount to a considerable sum in any year. In Minnesota such compensation payments exceeded \$70,000 annually before an active safety program was put into effect.

Detours are among the irritations of motoring but well marked barricades and signs lessen the risk and inconvenience of travel.



Directing traffic while repairs are in progress on a Minnesota highway.

After the program got under way, these costs were gradually scaled down until they dropped below \$30,000 a year. These figures are cited to show that the financial returns may be several times the cost of the campaign.

1. Organization for Safety

If a safety program is to function properly in a maintenance organization, the head of the division must take an active part in the program and keep a watchful eye on what is going on. For the most part, the safety program will function satisfactorily if properly organized and the functions of a maintenance engineer may be limited to acting as a final judge in cases of difficult decisions, and to

—To page 82

the industrial safety panel

Discusses

The Member Training Course



The Questions

1. Why did you decide to come to the Member Training Course?

2. What are you getting out of the Course?

3. If you were the boss of a safety director like yourself, would you send him to the Course?

The Participants

ROBERT G. BELKNAP, Engineering Department, Bemis Bro. Bag Co., St. Louis, Mo.

R. J. CARROLL, Chief Electrician and Safety Director, Eastern Light & Power Co., Ltd., Sydney, Nova Scotia.

VIRGIL L. JONES, Safety Engineer, Jahncke Service, Inc., New Orleans, La.

FRED E. VAN HORN, Assistant Safety Director, Solar Aircraft Co., Des Moines, Ia.

Moderator

BILL ANDREWS, Editorial Director, National Safety Council, Chicago, Ill.

Summary

Each of the four participants attended the Course because his company superiors thought he should. In some cases this company view was expressed as a flat instruction. In others, company approval was no more than an initialed note on a Course announcement saying, "Think this might be a good idea."

Three of the four participants expressed general satisfaction with the amount of valuable material they were getting out of the Course. The other participant expressed disappointment, stating that most of what he had heard at the Course he already knew. There was unanimity that the most useful material the course offered was on the human side of safety—suggestions on the organization of programs, suggestions on psychology, and suggestions on educational work. This type of material was, they all felt, more useful than the straight technical information offered.

Three out of the four participants stated, in effect, "If I were the boss of a safety director like myself, I would send him to the Course." The fourth member of the Panel was in doubt on his answer to the question. It is interesting that the one doubtful participant was *not* the man who, on the previous question, expressed disappointment in the course.

The four Panel members were fairly typical of students at Basic Member Training Courses. All of them were young. All were war veterans. Only one, Mr. Van Horn, had been in safety work any great length of time. All except Mr. Belknap had extensive industrial and/or engineering experience before entering safety

work. Mr. Belknap's training and interest have been in personnel work rather than production.

Mr. Carroll worked up from power plant operations to the post of chief electrician before being assigned the safety job for his company. Mr. Jones was an oil field worker who became a construction engineer. His employer, Jahncke Service, deals with building materials and dredging. Mr. Van Horn spent seven years as a machine operator, entered safety work four years ago. His employer, Solar Aircraft, manufactures "hot" equipment for jet aircraft. Its operations are largely the shaping and welding of sheet stainless steel.

The Discussion:

Mr. Carroll said he came to the Course because one of his superiors received an announcement of the Course and initialed it on to him with the suggestion that it might be a good idea for him to look into the plan. Mr. Carroll, as a thoroughly trained operating man who had never had specialized safety duties before, felt that he could get some good ideas, learn more about the services offered by the National Safety Council, and generally prepare himself for his duties.

Mr. Jones came to the Course because of a direct decision by his employers to send him. He was creating the position of safety di-

rector in his concern, and his employers felt he needed the basic safety instruction to supplement his industrial and engineering experience.

Mr. Van Horn and his immediate superior, who had had extensive contact with the Council by mail, discussed the Course and arrived at the decision to send Van Horn largely to familiarize himself with the people they had been in correspondence with and to gain a better knowledge of Council services.

Mr. Belknap was sent to the Course by his company to prepare him for his safety duties for which he had neither specialized training nor extensive practical industrial experience.

These men were talking over luncheon on the fourth day of the five-day Course. None of them claimed that they could yet give a clear evaluation of the long-term value of the instruction. The opinions on this point are admittedly tentative, but they represent the thinking of the group at the stage at which the Panel meeting was held.

Mr. Carroll was emphatic that the great value of the Course lay in its material on the handling of the human side of safety — the worker, the supervisor. He was much interested in the psychological material presented. He found the material on the organization of a safety program of particular value.

Mr. Belknap expressed general agreement on these points, but placed great emphasis on the value of the contact with the staff specialists and with his fellow students. He felt that he learned much from the presentation of specific problems by various class members. Yet both he and Mr. Carroll stressed the point that they had learned that the class instructors could not offer concrete remedies for specific local problems, but that they did offer excellent information on the methods of getting specific information on which to base solutions.

Mr. Jones was disappointed in the Course. He came, he said, expecting to get considerable new information. He felt that he was not getting as much as he wanted of what he did not already know. He stressed the fact that he did get some good information. He, like the others, felt that the material on the human side of safety was more valuable than the technical instruction. He had no criticism of the quality of this phase of the instruction but felt that there was not enough of it.

Mr. Van Horn held generally the same view but gave greater weight to the matter of getting to know the Council services and the staff members better. This, he felt, represented a major contribution to his effectiveness. He also expressed the feeling that most companies have gone so far beyond the basic organization of safety that they often lose touch with the fundamentals. He wanted and got a refresher course in these fundamentals.

On the question of whether class participants would, if they had the decision to make, send to the Course other safety engineers like themselves. All except Mr. Carroll said, "Yes." Since only Mr. Carroll's doubtful and Mr. Jones' favorable views seemed in conflict with their previous statements on the value they got out of the Course, only the reasons for their views were explored.

Mr. Jones felt that the sending

This month the Industrial Safety Panel departs from its usual pattern. Instead of being conducted by mail it was held at National Safety Council headquarters at the conclusion of a recent Basic Member Training Course. Four members of the Course, whose opinions were not known in advance, were invited to meet with the moderator. The Editors.

of a safety man to the course was a gamble, but a gamble with the odds in favor of the company sending him. He said that even if a man got little from the formal Course instruction, he might gain greatly by contact with men in his field. He also believed that many safety men might learn much on the technical side, even though he did not feel that he had done so personally.

Mr. Carroll's doubts were based on his view of the special nature of the electric power industry. He felt that in most industries safety had a direct effect on production, while in the power industry production was not at stake—only costs. He wanted more time, he said, to evaluate the cost and inconvenience of sending a man to Chicago against the possible savings his increased knowledge might bring.



Panel participants (left to right): Fred E. Van Horn, Virgil L. Jones, Bill Andrews, Robert G. Belknap and R. J. Carroll.

Steel Strapping — Flat or Round

Published by National Safety Council,
20 North Wacker Drive, Chicago 6

1. Steel strapping, flat or round, is used to reinforce or bind wood or fiberboard boxes and other containers. It is also used for bundling packages together for convenience in shipment or handling.

2. Flat steel strapping is available in widths ranging from $\frac{1}{4}$ inch to 2 inches and in thicknesses from .010 inch to .050 inch. It is applied under tension, and the two ends are joined together by a crimped metal seal.

3. Round steel strapping is available in sizes ranging from 19 gauge (U.S. Standard Gauge .0418 inch) to 8 gauge (U. S. Standard Gauge .1644 inch). It is applied under tension, and the two ends are twisted together to form a joint.

4. Steel strapping, both flat and round, is applied either with manually operated tools or automatic or semiautomatic machines.

5. The principal hazards in the handling of steel strapping or wire binding are these:

- a. If incorrectly applied or removed or subjected to undue strain, steel strapping, flat or round, may break. Being under tension, the loose ends will snap away from the package and may strike a person and cause cuts or eye injuries.
- b. Improper handling of strapped containers, such as using the flat band of round wire as a hand hold, may result in cuts. There is danger in removing the strapping from the container or shipment if the proper tool is not used or if the operator is careless.

c. Flat straps or round wire not disposed of properly may create a tripping or cutting hazard.

d. In cutting straps on railroad shipments, the operator may be trapped under shifting lading or between the lading and a stationary object.

Storage

6. Binding materials should be kept coiled and secured, ready for use. They should be stored in a dry and ventilated place, especially if they are to be kept for any length of time.

7. Steel strap or wire cut to length for use on uniform-sized material should be placed so that it does not create a tripping or cutting hazard by projecting into aisles or work areas.

8. Oil and grease should be kept away from strapping or wire stocks. Oil or grease will cause the stretcher to slip, and the man handling the banding tool may then slip and be injured as a result of striking against a machine or other object.

This Industrial Data Sheet is one of a series published by National Safety Council. It is a compilation of experience from many sources. It should not be assumed, however, that it includes every acceptable procedure in its field. It must not be confused with American Standard Safety codes; federal laws; insurance requirements; state laws; rules and regulations; and municipal ordinances. Reprints of all Data Sheets are obtainable from National Safety Council.



Figure 1. Recommended practice for cutting steel strap: Hold down strapping with left hand, and stand back to keep out of range of the cut end. Note operator is wearing gloves and long sleeves.

9. If steel strapping becomes rusted because of improper storage or for other reasons, it should not be used. Excessive rust on steel strapping will reduce its strength. Rusty materials are also harder to handle.*

Personal Protection

10. Most strapping is fabricated with rounded edges to prevent cuts, and safety departments should check to see that this type of stock is being used. If a strap has rough or sharp edges, men should wear gloves when handling it.

11. Gloves should be loose at the wrist so that they can be easily removed. Steel-studded gloves may

* Galvanized and coated strapping, which is protected against rusting, is available.

be advisable on some applications.

12. On machine applications of strapping, workmen should not wear loose or flapping clothing that might be caught between merchandise and strapping.

13. If men operating automatic machines must wear gloves, they should be warned that fabric may be caught when tension is applied, and that their fingers or hands may thus be caught under strap or wire being tightened.

14. Workers should wear safety goggles when applying or removing steel strapping. The direction in which strapping will whip if it breaks when compressible materials are being strapped is unpredictable, and many companies require not only that the workers applying or removing strapping wear eye protection but that everyone in the area be similarly protected.

15. Leather palm gloves are also recommended. On heavier weights it may be necessary for men to wear steel-studded gloves and a face shield in addition to goggles.

16. If heavy or bulky material is being strapped, the workmen should wear safety shoes because when they manipulate the shipment to secure the bands, their feet may be caught under the container. Many companies insist that employees wear safety shoes at all times to prevent toe injuries from falling materials or tools.

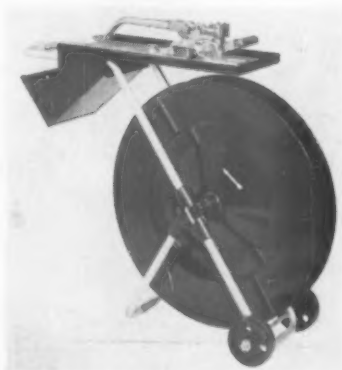


Figure 2. Commercially available cart to hold steel strapping rolls and tools.

17. Men should be encouraged to work with their sleeves rolled down. In many cases scratches might be prevented by a single thickness of cloth covering the forearm.

18. When heavier gauge straps are used, it may be advisable to provide rubberized fabric or plastic sleeve guards for men handling containers of medium weight, and leather or even metal-studded



Figure 3. Commercially available suspended steel strapping coil.

leather sleeve guards for men handling heavy containers like those found in carloading and similar shipments.

Applying Steel Strap or Wire

19. Manufacturers of steel strapping usually provide carts fitted with racks for dispensing it and with trays to hold necessary tools for application. Also, these carts usually have fasteners to hold loose ends of strap or wire. The ends should be fitted through or under these fasteners.

20. In many factories strap coils are suspended overhead and strap

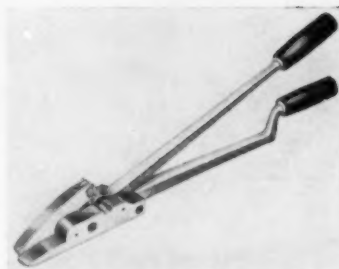


Figure 4. This steel strapping cutter with extension handles exerts minimum added tension and removes the operator's hands from the hazard zone.

racks are pulled into position with block and tackle. This method is hazardous because the strap rack is likely to fall. The danger can be eliminated by providing a safety rod from ceiling to rack to which the rack is securely fastened after it is pulled into position.

21. To withdraw strap from a coil, the workman should hold the strap between his thumb and forefinger so that he will not be cut if the coils binds. He should not place his hand around the strap. For safety and economy, only enough strap or wire should be withdrawn to go around the material to be secured and to allow for proper operation of the fastening tool.

22. In some plants men may be required to walk backward when pulling strap from a reel. In that case, plant layout should be such that there is no danger of tripping or stepping off loading platforms.

23. Workmen should take care to use a strapping tool of proper design and size for the strap. Tools should be kept in good repair and used only for the purpose for which they are intended, never as hammers or pries.

24. Most strapping tools can be used on narrower and lighter weight straps than those for which they are intended, but if they are, the straps may break because of the leverage which can be exerted with heavier tools.

25. When operating a strapping tool, the workman should stand so

—To page 56

AN OIL REFINERY CONTROLS HAZARDS

A PHOTOGRAPHIC record of the safety features found in a modern oil refinery would fill a good sized album. Housekeeping, fire protection and materials handling bring many problems, some of which are peculiar to the product handled and some common to all industry.

The accompanying illustrations show some of the features in refineries of The Pure Oil Company.

1. At the grease plant loading rack, a tank car is inspected to make sure the valve is closed and there is no refuse in the bottom of the car. The safety bridge can be removed.

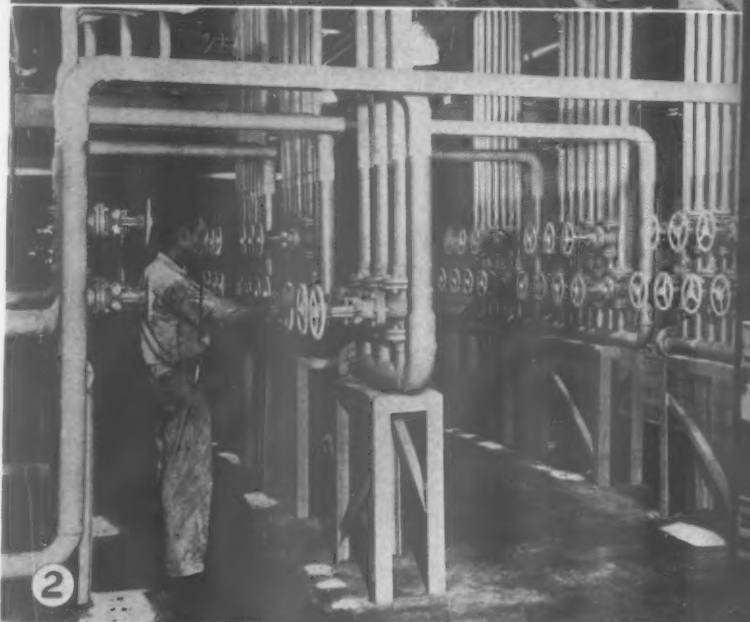
2. Manifold valves in the grease plant are easily accessible and absorbent compounds help to keep the floor free from slipping hazards.

3. Setting a gang plank with a lift truck. The gang planks are held securely in place and have toeboards as an added safety item.

4. Loading rack spouts require swing joints and slip joints to reach dome hatches and tank trucks. These joints are oil-lubricated and therefore provide insulation against the flow of electric current. To provide a continuous electric circuit from the fill spout to the piping, electrical jumpers are provided around swing joints and slip joints. The special slip joint shown here contains a metal-to-metal contactor which eliminates the necessity of using an electrical jumper around the joint. It does not eliminate the use of the bonding cable.

5. Loading a pallet with 55-gallon drums. The specially designed power hoist, with push-button control does the work safely and easily.

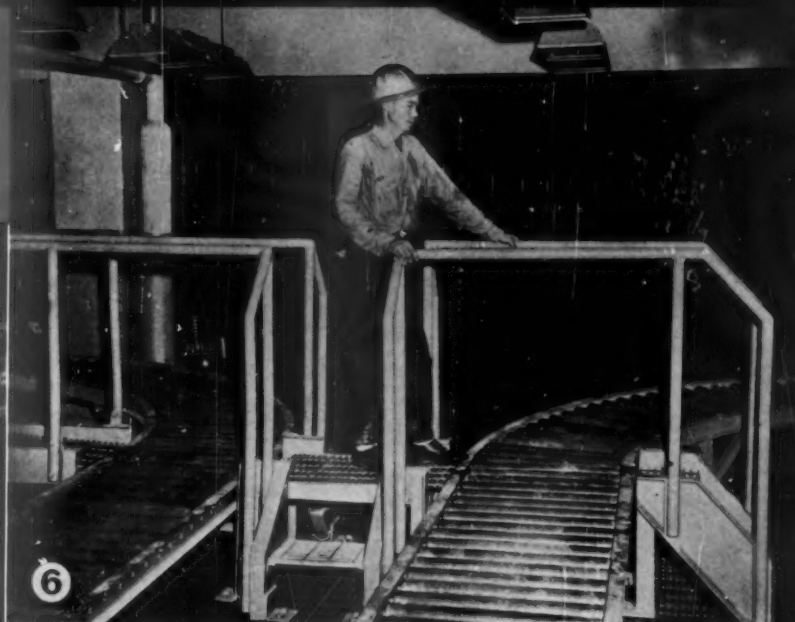
6. Safety stiles for crossing conveyor lines. Rounded handrails prevent catching clothes or scratching hands on sharp corners and fluorescent lighting avoids glare and shadows.



7. Palletized material storing contributes greatly to order and safety.



4



6



5



7

8. Placing barrels for clean rags and dirty rags side by side encourages safe disposal of dirty rags.



8



STATISTICS ARE A HEADACHE

By **BILL ANDREWS**
(Fiction)

December 30, 1949

The plant shut down at noon, and I'm sitting in the deserted department trying to sum up a year of working and living.

In most personal matters, it's been a good year. Sue and I were still newlyweds when the year began, and now Jack's two months old, with a beaming smile that's compensation for his shoving me down to the position of Number Two man in the family.

And though I'm beginning to pay for the honor in hard work, I'm taking a good deal of pride in my position as general chairman of our industry's National Safety Council section.

Like everybody else at Jackson-Barnes, I'm still struggling to adjust to the changed management situation. When Jackson retired from the presidency and Joe Roscoe took it over, we traded a driving, dictatorial, all-around genius for a salesman with a talent for organization and real skill in the manipulation of people. We traded a man who kept everything in a tight rein for a man who believes in delegating responsibility.

In spite of his occasional outbursts of salesmeetingish guff, Joe defines his expectations clearly, and scrupulously gives each of us

the authority we need to meet his expectations. The skill with which he plays his organizational cards compensates for his ignorance of manufacturing methods.

My own position as safety engineer is strengthened by my transfer from personnel to the staff of Larson, v-p in charge of manufacturing.

Internally, the safety department is in fair shape. I'm still saddled with Marvin, Jackson's son-in-law, but he doesn't do enough work to get us in much trouble. I use him as a speaker at outlying plants where they don't know him well and as head of the speakers' bureau of the Galeston Chapter of the National Safety Council. He is easily worth one-third of what we're paying him.

Jim Mason is a tower of strength. He's still young and active, but he's had five years of safety experience, a year and a half with me. He still has a lot to learn, but he's learning it fast. With luck, he'll soon be heading up his own safety department. If I should get fired or promoted, he could head this one.

Jack Bell is Mason's age, but his safety experience is limited to his 16 months with me. I took him off of record work in the personnel department, and I've kept him

pretty close to the grindstone of our record keeping. Naturally, he's frustrated. He's really interested in safety work, and he wants a lot more investigation and other practical work than I'm giving him.

Louis Jamison, my new man, is still an unknown quantity. I'm using him almost entirely on minor investigations. He's conscientious, unbrilliant, not too quick to learn. I'm sending him to the February session of the National Safety Council's Basic Member Training Course, which should help. Meantime, I've got to give him more personal attention than I have so far.

* * *

The current immediate headache is accident records. As part of our expanded program, I gave Jack the job of developing a record system that would produce more usable cause-analysis data. We put the system into effect on December 1.

Now we've got half the supervisors in the plant down our necks.

Even my old standbys among the supervisors are crabbing. Their squawks have come back to Larson, and I have to justify the system at a meeting of department heads and outlying plant superintendents in his office next week.

A typical reaction came from Riley, foreman of the wood shop. Riley's always been for the safety program. He's been grateful for our help. He's conscientiously tried to learn from us. And his record has gone from bad to darned good in two years.

He took the system without a whimper. Jack spent half a day with him and his clerk to explain it. They gave it, as nearly as I can tell, a good try. But after a week, Riley was in my office, saying,

"This system's no good. My clerk's spent five hours on it, just trying to report on two first-aid cases. And here's the result, a couple of sheets of paper with everything on them about who the guys are, how old they are, what they were doing before the accidents happened, and just about everything except what they like for supper. I've been over the things and I'm darned if I can see that it helps me a bit. One guy tripped and bruised his toe, and the other guy had a splinter removed by the nurse. No lost time—except five hours for a busy clerk who ought to be doing something useful. And what have I got that I didn't know before?"

Some of the other comments were even rougher. One foreman said, "I can be more use getting out and watching for hazards then sitting at my desk filling out forms." Another one snapped, "Cause analysis, phooey! Get some of these lunkheads to do what I can tell them, and these accidents will stop."

But the criticism that seems most basic to me came from Lathrop in the foundry, who said, "Your long tabulations of environmental causes, unsafe behavior, and all that stuff won't help me!"

Jack and I went over the beefs carefully. Jack's reaction was simple and direct: "These foremen are a bunch of dopes. A good cause analysis will tell them when, where and how their accidents are happening. I've told them that. Of course we haven't got any dope
—To page 88

The SAFETY VALVE



Sic Transit

One doesn't have to be very old to remember when the GAR had the place of honor in the Memorial Day parades. As they passed, there were many misty eyes along the line of march.

Year by year their ranks became thinner and their steps more feeble, until even the most stubborn of them had to yield to time and ride in cars. And then came the sad day when they were missing from the parade.

Last summer, half a dozen men—all of them around the century mark—met in Indianapolis for the Final Encampment of the Grand Army of the Republic. Then they returned home to dream of the past until Taps should sound for them and they joined their comrades sleeping in the national cemeteries on many battlefields and in family plots.

The passing of this noble group has been observed by a special postage stamp—one of the finest commemorative issues yet produced. It portrays the aged veteran in the familiar slouch hat, head bowed, dreaming of the past. In the background is the upturned face of a young soldier with peaked cap. And in one corner of the stamp is a symbolic hour glass with the sand rapidly running out.

"Dr. Pilgrim"

I have found a great deal of pleasure in reading "Dr. Pilgrim's" column in *Industrial Medicine*. We had many mutual interests.

Dr. Clarence Olds Sappington was truly a pilgrim. He traveled widely, helping industries correct health hazards and always seeking new light on methods that would conserve the life and health of the worker.

When we lived on Chicago's south side we enjoyed many an evening of bridge with the Sappingtons, but usually there was more conversation than cards. Doc's conversation was more entertaining, and all of us had a common interest in music.

In music he found a counterbalance to his strenuous professional life. He played the double bass in the Chicago Business Men's symphony orchestra and evenings which started at the card table usually ended around the piano. He had composed several charming pieces.

When I listened to the Philharmonic program Sunday afternoon I knew Doc would be near a radio. His column frequently contained comments on the program along with reports of people he had visited on his trips.

When we moved to a northwest suburb our contacts became less and less frequent. Their last visit at our home was shortly before their son Jack went overseas to meet death in action. Some snapshots in a desk drawer reminded me of that visit.

On a beautiful autumn Sunday morning Dr. Pilgrim went on his last pilgrimage. His overworked heart gave out.

At the funeral, the minister read an understanding tribute to Dr. Sappington from his colleagues, with an appropriate quotation from *Pilgrim's Progress*.

It is a privilege to have been one of his friends.

A hobby is something you get goofy about to keep from going nuts about things in general.

Carman Fish

CAUSE AND CURE



These examples are from reports of actual accidents. They list the causes and the steps taken to prevent recurrence



Cupola Fumes

Foundry worker entered cupola stack through charging door to repair lining after fire had been kindled, falling from cupola charges when overcome by fumes.

Correction: Foreman was forbidden to allow repairs except when cupola is cold, with bottom doors open, and was ordered to build platforms when work cannot be reached from floor level.



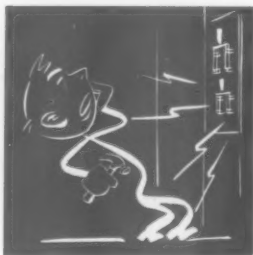
Passerby Hit

Woman passing side-walk excavation for deepening utility man-hole was struck by muck falling from muck bucket swung by crane to dumping area.

Correction: Contractor was ordered to barricade danger area and to provide protected walkway for pedestrians around obstruction so they would not be forced under boom.

Fatal Shock

Experienced carpenter partitioning generator room received minor shocks twice while attaching panels near switchboard, finally received fatal shock.



Correction: Foremen were ordered to supervise hazardous work constantly, and to cut off power when work must be done in area of live electrical equipment.

Fatal Bath

Factory worker walking through unlighted boiler room fell into pit full of hot soda ash solution and was fatally scalded before he could be rescued.



Correction: Foreman was ordered to repair broken pipe drain for blow-off fluid from boilers, which had caused pit to form, and to barricade pit until it was filled.



Fumes Kill

Rubber churn room helper removing cement from a 55-gal. drum by dipping was asphyxiated by naphtha fumes and was found hanging over edge of drum.

Correction: Size of storage and handling containers and methods of handling were changed to prevent workers from being subjected to concentrated fumes of volatile substances.



Going Down!

Delivering load of reinforcing steel to building under construction, driver backed truck on to newly laid floor, which collapsed under excessive weight.

Correction: Drivers were told to inquire as to load limits of floors before unloading heavy materials. Contractor's personnel were told to protect construction projects.

Labor - Management Cooperation In Safety in Sweden

By GUNNAR HULTMAN

THE Confederation of Swedish Trade Unions celebrated its fiftieth anniversary in August, 1948. The Swedish Employers' Federation is five years younger.

Between the organizations of labor and employer there were many bitter fights for which both parties spent exorbitant sums of money. Usually neither side won.

Soon the nation tired of the fighting. In parliament (Riksdag) the different parties made proposals to protect the citizens against strikes and lockouts. In 1928 Sweden got its law about collective bargaining and the Labor Court. This meant that disputes about the interpretation of existing contracts had to be referred to the court.

Disagreements about existing contracts still had to be dealt with by the parties themselves. In the wood pulp industry conflicts caused considerable economic losses. Finally, in 1934 serious conflict occurred in the building industry.

The Social Democratic government then appointed a committee with broad authority headed by the present Governor General.

First, the committee recommended that the trade organization movement be reformed, aiming at strengthening the position of the labor organization, and it also urged greater responsibility on the part of the central boards for decisions affecting industrial

peace. The committee also expressed itself in favor of open organizations. The organizations themselves should try to carry out the desired reforms and only if this method failed should the state intervene.

At a meeting in March, 1936, the Confederation took stock of all issues of contention. It was established that employers and workers shared a common interest in restricting state intervention in the labor market. The Secretariate General of the Confederation of Trade Unions, therefore, recommended the resumption of unbiased negotiations with the Employers' Federation.

The board of directors of the Employers' Federation accepted the proposal of the Confederation. A general inventory was made of joint problems and detailed investigations were made. In September, 1938, a proposal for a basic agreement between the two parent organizations was unanimously adopted.

Discard Irritating Methods

By basic agreement, capital and labor have endeavored to safeguard freedom in the labor market and have aimed at discarding methods which irritate without being of essential value to either party.

The fields of cooperation must be chosen with great care and not extended too far. The cooperation between the labor market parties is an asset which neither party wants to spoil. It gives a mutual feeling of security and indicates that the parties are treating one another as equals and that they trust one another. But it also means

that there is a possibility for further cooperation. In this way, the regions in which disputes may arise are reduced.

It is only fair to state that there are certain regions in which cooperation is not possible. But the good cooperation in other fields effects feelings of reason and responsibility, which have a helpful influence when it comes to problems which cannot be dealt with easily.

Labor Safety

It is quite natural that the question of labor safety came to play the first role in these efforts of mutual understanding. Already in the autumn of 1939, this question was taken up for discussion by the Labor Market Committee. A subcommittee of five members from the Employers' Federation and an equal number from the Confederation of Trade Unions was given the task of investigating how labor safety could be improved by better organized local cooperation between employers and workers. This Safety Committee of the Organizations of the Labor Market submitted its findings and unanimous recommendations in September, 1941. These were based on the experiences gained by the committee during its visits to industries that on their own initiative had made efforts to secure adequate safety.

Several problems considered by the committee had also attracted the attention of the state authorities. One such question was to what extent the status of local safety representatives appointed by the workers should be strengthened.

—To page 70

GUNNAR HULTMAN is Managing Director of the Swedish Pulp Industry Employers' Association and President of the Labor Protection Board. This article has been condensed from a paper presented at a meeting of the American Society of Swedish Engineers, New York, November 9, 1948.

The Safety Library

Books, Pamphlets and Periodicals of Interest to Safety Men

Industrial Hygiene

Industrial Hygiene and Toxicology, Vol. II, Edited by Frank A. Patty. Published by Inter-Science Publishers, Inc., New York, 1949. 603 pages, \$15.00.

The appearance of this second volume completes this first large text on industrial hygiene and toxicology written from the point of view primarily of the chemist and engineer and with no attempt to discuss treatment of the various conditions which are discussed. This volume is concerned primarily with the properties and physiological actions of a large variety of materials used in industry, primarily atmospheric contaminants. The general line of discussion under each individual substance is an outline of the chemical and physical properties, the common uses and industrial exposures, the detection and determination of the material in the air, the toxicity by inhalation and by skin contact, the maximum allowable concentrations in the air and suggestions for avoiding contact or suggestions for safe handling of the material. This volume confirms the things said in our review of the first volume.

F. A. Van Atta

Industrial Toxicology, By Alice Hamilton, M.D. and Harriet L. Hardy, M.D. Published by Paul B. Hoeber, Inc., Medical Book Department of Harper & Bros., Inc., 1949. 574 pages, \$6.50.

This second edition of Dr. Hamilton's 1934 book has just about doubled in size and in coverage. It is a very thorough and complete rewriting of the original text which takes full advantage of the developments of the 15 years since the appearance of the book in the first edition. The new chapters on

beryllium and on synthetic rubber and plastics mark two substantial industries which did not exist at the time of the first edition. The enlarged section on welding also marks a substantial change in industrial operations since the publication of the first edition.

The subject of radio-activity which was gently touched in the earlier edition requires a substantial chapter.

The text is a sufficient proof of the thorough acquaintance of both the Junior and Senior authors with the literature of industrial intoxication as well as of their close personal acquaintance with the field. The bibliography runs to 1300 items and brings the literature survey up to some time in 1948.

The author index which appeared in the original edition has been dropped, being rather unnecessary since the bibliography is alphabetical by authors, the subject index appears to be very adequate.

F. A. Van Atta

BOOKS AND PAMPHLETS

Atmospheric Pollution

Air Pollution in Donora, Pa. Preliminary Report. Published by U. S. Public Health Service. 1949. 173 p. For sale by the Superintendent of Documents, Washington 25, D. C. Price \$1.25. (Public Health Bulletin No. 306)

Chemicals

Methyl Bromide. Published by Manufacturing Chemists' Association, 246 Woodward Bldg., Washington 5, D. C. 1949. 15 p. Price 20¢. (Chemical Safety Data Sheet SD-35)

Electricity

National Electrical Code. National Fire Codes. Vol. V. Pub-

lished by National Fire Protection Association, 60 Batterymarch St., Boston 10, Mass. 1949. 416 p. Price \$3.00.

Employee Meetings

How to Hold a Meeting. By Glenn L. Gardiner. Published by Elliott Service Co., 30 N. MacQuesten Parkway, Mount Vernon, N. Y. 1949. 12 p. Price 20¢.

Explosives

Blasters' Handbook. Twelfth Edition. Published by E. I. du Pont de Nemours & Co., Wilmington 98, Del. 1949. 453 p. Price \$1.50.

Fire Protection

Building Exit Code. Tenth Edition. Published by National Fire Protection Association, 60 Batterymarch St., Boston Mass. 1949. 127 p. Price \$1.00.

Third Symposium on Combustion and Flame and Explosion Phenomena. Published under the auspices of the Standing Committee on Combustion Symposia. Published by Williams & Wilkins Co., Baltimore, Md. 1949. 748 p. Price \$13.50.

Flammable Liquids

Fire Hazard Properties of Certain Flammable Liquid Gases and Volatile Solids. Published by National Fire Protection Association, 60 Batterymarch St., Boston 10, Mass. 1949. 70 p. Price 75¢ (NFPA No. 325)

Lifting

Teach Them to Lift. Published by U. S. Bureau of Labor Standards. 1949. 8 p. For sale by the Superintendent of Documents, Washington 25, D. C. Price 10¢.

Marine Industry

Pacific Coast Marine Safety Code. Published by Accident Prevention Bureau, Pacific Maritime Association, 16 California St., San Francisco 11, Cal. 1949 revision. 43 p. Free.

Mines

Fire-Fighting Facilities at Four Pennsylvania Bituminous Coal Mines. Published by U. S. Bureau of Mines. 1949. 17 p. Available

—To page 73

WHAT Management SHOULD KNOW about FLOOR-MAINTENANCE MACHINES



The area of a floor, whether it is congested or open, the type of flooring and whether it is easy or hard to clean — these, among other factors, determine the floor-maintenance equipment. For most effectual, economical floor care, choose accordingly.

For large-area floors, a combination scrubber-vacuum is the labor-saving answer. *Finnell's 213-P* applies the cleanser, scrubs, rinses if required, and picks up. Has a cleaning capacity up to 8,750 sq. ft. per hour!

For small-area floors, a 13" all-purpose machine, such as the new 713 *Finnell*, is a wise choice. This machine polishes, applies wax, wet- and dry-scrubs, light-sands, applies seal, steel-wools, and shampoos rugs! Yet it is priced incredibly low.

For grease-caked floors, a dry-scrubber with powerful scarifying brushes affords the fastest cleaning method. *Finnell's 84-XR*, with its self-sharpening brushes, cleans grease-caked floors in one-tenth the time required when hand-spudding!

For general use, average duty, substantial savings are effected with a 100 Series *Finnell* — the machine that's two sizes in one!

For general use, heavy duty, with emphasis on polishing needs, choose a motor-weighted machine. An 800 Series *Finnell* gives 8-way adaptability! . . . has safety switch on handle.

Because *Finnell* makes machines for every type of floor care — and in a wide range of sizes — you can depend on *Finnell* for unbiased advice as to the equipment that's right for your needs. For consultation, demonstration, or literature, phone or write nearest *Finnell Branch* or *Finnell System, Inc.*, 2201 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.



FINNELL SYSTEM, INC.

Pioneers and Specialists in

FLOOR-MAINTENANCE EQUIPMENT AND SUPPLIES

BRANCHES
IN ALL
PRINCIPAL
CITIES



Why do some folks have enough memory to recall to the tiniest detail what has happened to them, and not have enough to remember how many times they've told it to the same person?

Power Presses Can Be Guarded

(From page 27)

satisfactory individual die guard. We have numerous forming operations, swedging operations, etc., where the individual die guard would not be satisfactory, usually because of the difficulty of getting the piece out of the die.

Our answer to these problems is a two-hand control or gate guard. When the two-hand control can be used with a continuous hold-down device, such as is provided on some of the newer presses, it is just about foolproof. However, with a few exceptions, our presses are of the older type with a single stroke clutch. Here a two-hand control is not satisfactory unless the operation of the clutch and the speed of the ram are so rapid that the operator cannot beat the press.

There are also many applications for a gate guard with a ram-actuated gate valve. By this I mean a gate guard which actuates the ram, when the gate guard is in a closed position. This is especially applicable for forming operations when the descent of the ram is slow.

Much has been written about accidents that occur when a press repeats. According to a press manufacturer, a press never repeats. According to an operator, a repeating press causes many accidents. Which are we to believe? Our Tool Engineering Department decided to make a guard which would eliminate an accident caused by the repeating of a press. They accordingly set out to design a gate guard which would actuate the ram when the gate was lowered. This guard must also stay down until the ram has stopped at the top of its stroke.

To make it really foolproof we decided to incorporate two-hand control. Then we decided we would put a gate guard at the back of the press too, so we made it four-hand control. Then someone mentioned that maybe we would have

an operation where we would want to hold the stock, so we added a foot control. This is a press with gate guards front and back, two hand control front and back, and a foot control. It can be set up to operate with two hands, with four hands, with one foot and two hands, and one foot and four hands.

Frankly, we don't expect to equip any of our presses for production with anything as complicated as this. This press was a trial horse. We wanted to make a foolproof press and we believe we have done so. The press has been tried on many pilot runs. It is located in a corner, and therefore we cannot get to it too easily. However, we now believe we have all of the "bugs" ironed out of it except those that can be proved or determined in production and so we are making arrangements to have the press placed into constant production. If it works as satisfactorily as we expect, we believe we will have one of the most foolproof presses in the country.

We also, however, have investigated the various other types of guarding where the individual die guard cannot be used. We have looked at electric eyes, electric clutches, combination air clutches and brakes, and many of the other various types of guards that are so used. Where the individual die guard cannot be used, we are definitely partial to the two-hand control, continuous-hold-down type. However, we find that in many operations this is not satisfactory. The hands are required to feed the stock, pick out the finished piece, etc., and this may be done while the press is in operation. We are continuing our experiments of two-hand control, continuous-hold-down type. I expect we will install such a set of controls. It is entirely possible that we will have applications for both the gate-type guard with the non-repeat device

Creative Craftsmanship



FIGURED SILVER DISH

Sassanian Era
226-641 A.D.
Hermitage Museum

"Counted among the foremost treasures of figured metal in all the world . . . this repoussé" silver masterpiece captures the brilliant and luxurious culture of ancient Persia and manifests all the vigor, color and rhythm of true Sassanian craftsmanship.

Probably it is true that not for honor alone did this ancient artist labor. Like all creative craftsmen who exert inexhaustible patience and tireless effort, his one desire may have been to attain an

excellence, a superiority, that approached perfection as closely as humanly possible.

It is this philosophy that has guided Pax for a full quarter century in developing superlative Pax Heavy Duty. Today no other granulated skin cleanser surpasses this outstanding product in quality, in safety and all the other factors that have made it a favorite among America's largest industries.

*World History of Art
by Sheldon Cheney*

What is the
PRODUCT USE ?
FACTOR of PAX ?



PAX-LANO-SAV HEAVY DUTY GRANULATED SKIN CLEANSER

PAX-LANO-SAV—a superior skin emollient combining lanolin and other special skin normalizers.

The Pax trademark symbolizes a deep-rooted tradition of superlative quality maintained through almost a quarter century of continuous research and development.

ADVERTISED IN **A** AMERICAN
M MEDICAL
A ASSOCIATION PUBLICATIONS

G. H. PACKWOOD MANUFACTURING CO. • 1545-55 TOWER GROVE AVE. • ST. LOUIS 10, MO.

Manufacturers of Fine Industrial Skin Cleansers

**Trademark of G. H. Packwood Mfg. Co.*

*In addition to PAX-LANO-SAV HEAVY DUTY, PAX also offers the following powdered or granulated quality skin cleansers: PAX CORN-TEX • PAX HYSPEED • DICTATOR SPECIAL PURPOSE • BORAPAX • SUPER-X • VELVAPAX LIGHT DUTY • OFFICE-PAX • PAX MECHANICS. Also available are PAX WATERLESS and PAX HECTO INK CLEANSING CREAM • PAX SKIN CLEANSER ECONOMIZER • DISPENSERS • and many other fine PAX Products.

50 A

Past General Chairmen, Railroad Section



At the 37th National Safety Congress, 11 past general chairmen of the Railroad Section assembled for the above picture.

Front row, left to right: E. L. Henry, Chicago & North Western (retired); O. F. Gnadinger, Elgin, Joliet & Eastern (retired); Thomas H. Carrow, Pennsylvania; John E. Long, Delaware & Hudson;

George W. Elste, Baltimore & Ohio; Robert Scott, Atlantic Coast Line.

Rear row: A. V. Rohweder, Duluth, Missabe & Iron Range; L. E. Hoffman, St. Louis Southwestern; W. H. Roberts, Chicago & North Western; C. M. Bowling, Louisville & Nashville; D. E. Mumford, New York Central.

and two-hand, continuous-hold-down type.

The committee quickly realized the importance of establishing a centralized control to coordinate die design, guard design and fabrication. They recommended that the die guard department come under the jurisdiction of the maintenance and tools department as does tool design. The department was so set up, supervised by the millwrights of the maintenance and tools department. However, since guards are seldom made to drawings, we had trouble until we arranged to have the guard department supervised by the tool engineers.

Our request for central die storage, however, failed to materialize. The economics of the thing just don't warrant the expenditure. A suitable die storage area centrally located where it would do the most good is out of the question.

The program was also set up to provide guards for all new dies. The guard is made part of the order and is charged to the order on which the die is manufactured. There are, of course, certain dies which cannot be supplied with individual guards, and there are some which undoubtedly could be supplied but we are not yet decided as to the method of application.

The Health and Safety Department inspects the guards and the dies at the same time and issues you a die guard approval card. This brings us to one of the most important phases of the program, the establishment of an automatic procedure to assure that old dies will be guarded only as they are required for use. As previously mentioned, we have over 7,500 dies in our plant. A very large percentage of these may never be

used again except for repairs. Some of these dies are 30 or 40 years old and are still satisfactory but the part is obsolete. However, we may still have to supply repair parts at some time and the die might cost several thousands of dollars to replace. Obviously, it is inadvisable to start out on a hit-and-miss program of guarding all of these old dies that may never be used again. Therefore, we established an automatic procedure something like this.

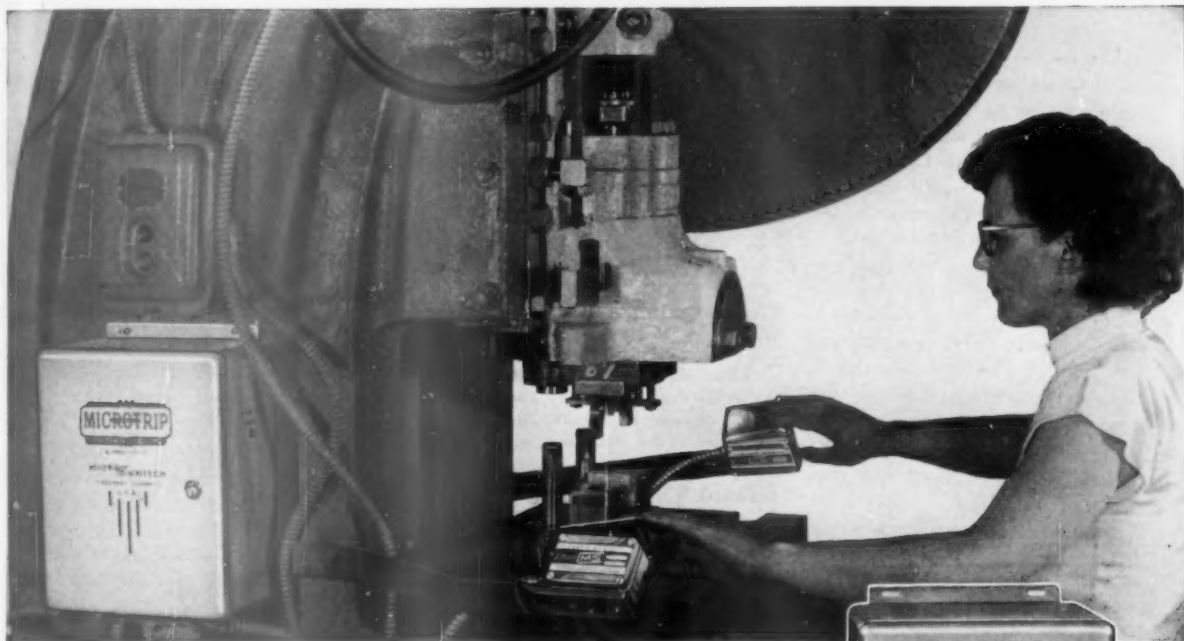
When the planning department issues specifications and labor tickets for a part to be run in the punch press department they would also issue a die guard approval card for the die required. Information on this card includes the date on which the die would be used, and the card is forwarded to the die guard department through the tool engineers. When the die is completed the die guard department calls the health and safety department for approval. The card is then returned to the planning department for permanent record. We have had some trouble making this system work but we are making certain changes in our production control department which we believe will solve these problems. In the meantime, the tool engineers are determining which dies are to be guarded by checking with the shop foreman.

It should be pointed out that the guarding of a die, or a successful guarding program of any kind, should not relieve the foreman of his responsibility for safe production. Regardless of what a system does, only the production shop itself can adequately supervise the men doing the job. We believe it is still the foreman's prerogative and responsibility to stop an operation if the guard isn't made or to order a guard on a particular die, if he considers it necessary, regardless of procedures, etc.

The guarding of dies, whether by individual die guard or by other means, can be greatly facilitated if proper consideration is given to safety features when the

MICROTRIP PRESS CONTROL

... Assures Increased Production with
Complete Operator Safety



MICROTRIP Press Control is a two-hand electrical device that increases production, lessens operator fatigue and assures complete protection to the operator.

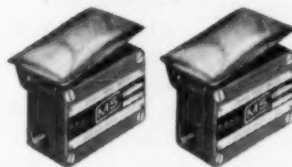
Its use finds favor with plant production men, press operators and safety engineers. The instant electrical response, the light-touch actuation and the direct motion of the operator's hands . . . away from the danger zone . . . increase the speed and ease of press operations.

Use of MICROTRIP is not confined to simple, one-man operated presses. It is also available for multiple-station operation. It is easily installed on both old and new equipment.

For complete information on the application of MICROTRIP Press Control to your power-operated equipment, write MICRO SWITCH, Freeport, Illinois, or contact any branch office.



"MICROTRIP" Control box and the two plate-actuated MICRO precision switches.



BRANCH OFFICES: Chicago • New York • Boston • Cleveland • Los Angeles

SALES REPRESENTATIVES: Portland • St. Louis • Dallas • Toronto

die itself is designed. If the die designer spends just a little time trying to decide how he is going to get that piece out of there safely without making it necessary for the operator to get his hand in, he will have accomplished a lot. To make the tool engineering department responsible for the guarding, it will also make it necessary for all of the dies to be ordered by this department.

At one time we occasionally had incidents where the purchasing department, or an engineering department, might subcontract an order for a number of punchings. At that time they would also purchase the die, unknown to the manufacturing department in general or the tool engineering department in particular. This die might not be made to our standards and most certainly would not be guarded to our standards. Moreover it might be made so that it never could be guarded the way we would like to have it. For this reason, we made it an iron-clad rule that all orders for dies must be routed to the tool engineering department.

We also worked up a die data sheet. Frankly, this data sheet was worked up primarily to cover those cases where the die might be ordered without complete drawings. During the war this was common practice in some places. Actually, since that time, we have been able to completely detail our die drawings. We believe this pays. It is easier for a man to make lines on a piece of paper than for a toolmaker in the shop to try to figure out what a die should look like from a part drawing. We now specify all bolts, dowels, etc. Of course, once this procedure was adopted the necessity of the die data sheet waned. It is now used only as a source of information, or as a reminder.

All new dies are approved by the health and safety department upon their completion. This approval is given at the time the guard is checked for approval.

Inspection and Maintenance

The safety of a punch press depends definitely upon its mechanical condition and so the punch press guards committee recommended that periodic inspection be made. They therefore established an inspection procedure in which an inspection sheet must be filled in every time a punch press was inspected. The inspection sheet was then to be turned in to the foreman who would sign and

nated because it considered this the responsibility of the foreman. This is a point well taken and to which many production supervisors and practically all maintenance men will agree.

To get a better opinion, an expert machine repairman made a complete check on every press in the plant. The report showed that few of the punch presses were in A-1 condition. Practically all of them needed some repairs. Most of these repairs were minor, but they practically all needed work. The present day foreman, with his production requirements, paper work, and personnel relations, needs help in checking the condition of his punch presses. We, therefore, have decided that a punch press inspector should be placed on the job and such a man has been appointed.

Now we would like to talk for a minute about the cost of the program. We originally recommended that two men be placed in the guard department for the first year and that \$5,000 be provided for materials, two-hand controls, etc. We have definitely found the need for the two men, in fact, lots of times we could use three or four. However, the break-in period for such a man is considerable and we believe that we ultimately will catch up with two men. We will need the two men for some time, not just for the first year as originally anticipated. We had hoped to complete the individual die guards in eight hours each. Actually, they require from 12 to 16 hours. Plastic costs about \$2.10 per square foot. These costs may seem high. However, in Wisconsin compensation costs are approximately as follows:

Loss of hand	\$13,000
Loss of thumb	4,068
Loss of index finger	1,953

From December, 1942, to July, 1944, we had five finger amputations, with direct compensation and medical costs of \$2,168.63. Taking into account the commonly accepted indirect costs, the total would be approximately \$11,000.

DIE GUARDING INSPECTION SHEET			
GUARD APPROVAL CARD		Die Number	
THIS CARD IS NOTIFICATION THAT GUARD FABRICATOR IS TO BEAT <u>SAFETY</u>			
Machine No.	Type of Operation	Date	
Drawn	Part Drawing No.		
Customer Order No.			
Type of Guard Required	Guard Order No.		
Date Die to be Used			
Inspection Schedule	Date Rec'd	Date Rec'd	Initiated by
1. Tool Eng. Dept.			
2. Guard Dept.			
3. Health and Safety Dept.			
4. Planning Dept.			
This Guard Has Been Inspected and a. Satisfactory b. Unsatisfactory Init. Maximum Stroke of Operation			
Signed		Health and Safety Department	

Card used for approval on new dies and ordering of guard and obtaining approval on old dies. Data includes type of guard and there are spaces for approval by Tool Engineering Department, Guard Department, Health and Safety Department, and Planning Department.

forward it to the machine repair department if repairs were required. The machine repairman would sign the sheet when the work was complete and return it to the foreman who would then sign it again to indicate his approval.

On the face of it this seemed like a good idea. However, we immediately ran into difficulties. The main difficulty was finding a man capable of doing such work and who could be spared to do so. A qualified punch press inspector should be a man who has had considerable experience both in the operation and maintenance of punch presses. He should not only know what makes a punch press go, and what you have to do to keep it going, he should also be able to tell by the sound or the "feel" if that press is running right.

This phase of our program is still not operating satisfactorily. There is one school of thought which recommended that the punch press inspector be elimi-

Therefore we believe that a program of guarding and maintenance pays off.

We still have much to accomplish. So far, our work has been primarily with blanking and piercing dies, some small forming operations, and generally light work. We have not yet touched on heavier shearing and blanking operations. Much of this can be guarded with individual die guards but the guards will have to be of considerably heavier construction.

The success of such a program depends on all parties involved. That includes shop supervision, the safety department, and the people who design and build the dies and guards.

Safety Courses Offered By N. Y. University

The spring term of the evening program in industrial and traffic-safety training offered by the Center for Safety Education, New York University, begins February 6, 1950. The expanded curriculum makes it possible for students enrolled for a full program during the fall term to complete their course requirements for a certificate in either industrial or traffic safety. In addition, new students and students not working toward a certificate are eligible for enrollment in any of the courses.

The following will be offered in the spring term:

Basic Required Courses: Safety Directors and Safety Engineers, Their Qualifications, Duties, and Responsibilities; Safety Organization: Values and Limitations; Management and Supervision in Accident Prevention.

Required Courses, Industrial Safety: Industrial Hygiene and Occupational Diseases; Fire Prevention and Protection Inspection.

Required Courses, Traffic Safety: Safety Supervision and Management in Commercial Vehicle Fleets.

Elective Courses: Special Problems in Accident Prevention; Safety for Industrial Nurses.

Students may register for the spring term until 6:00 p.m. daily during the week of January 30 or between 5:00 and 6:00 p.m. on the opening night of each course.

**COULD
ANYTHING BE
MORE CONVINCING
THAN YOUR OWN
EXPERIENCE?**

Then give HERC-ALLOY the toughest chain job in your plant. Our asking for this test reflects the confidence given us by HERC-ALLOY service records from industry's leading plants.

**HERC-ALLOY
STEEL CHAIN**

HERC-ALLOY is America's **first alloy** steel chain. For slings or other applications HERC-ALLOY Chain will prove that efficiency, safety and economy can go hand-in-hand.

COLUMBUS McKINNON

CHAIN CORPORATION

(Affiliated with Chisholm-Moore Hoist Corporation)

GENERAL OFFICES AND FACTORIES: TONAWANDA, N. Y.

SALES OFFICES: NEW YORK • CHICAGO • CLEVELAND • SAN FRANCISCO

Other Factories at Angola, New York, St. Catharines, Ontario and Johannesburg, S. A.

Green Cross News . .

Activities of Local Safety Councils and Chapters

Leaders for Safety

On the sound premise that industrial safety would best be served if management's interest could be more strongly emphasized, the 1949-50 series of Industrial Safety Meetings, sponsored by the Greater Cleveland Safety Council and cooperating organizations, positioned several well-known industrial presidents as featured speakers. They included Albert J. Weatherhead, Jr., president, The Weatherhead Company; T. Keith Glennan, president, Case Institute of Technology; Dwight P. Joyce, president, the Glidden Company; R. A. Weaver, chairman of the board, Ferro Enamel Corporation, and Roy Barton White, president, Baltimore & Ohio Railroad, Baltimore. The other speakers are prominent safety specialists. The series began on September 19 and the monthly meetings will continue up to June 27. Average attendance is around 400.

Atlanta Chapter

A Chapter of the National Safety Council was organized in Atlanta on Tuesday, November 1, at a luncheon given by Robert W. Woodruff, chairman of the Executive Committee of the Coca-Cola Company. A budget of \$50,000 was raised to cover the first year of Chapter operation. Thirty-seven recognized leaders of the Atlanta area comprise the board of directors. L. F. Montgomery, president of the Atlanta Coca-Cola Bottling Company, is Chairman of the Board; Rutherford L. Ellis, president of Lipscomb-Ellis Company, is president of the new organization; and Robert R. Snodgrass, president of the Greater Atlanta Traffic Improvement Association, Inc., is chairman of the Executive Committee. Robert B. Leopold, who has been executive director of the

Traffic Improvement Association during recent years and who formerly was a member of the NSC Field staff, was named managing director of the Chapter at the first meeting of the Executive committee. An over-all program eventually will cover traffic, home, school, industrial and possibly other fields. Earl F. Campbell, director, NSC Field Organization, assisted in setting up the Chapter. Offices will be opened by the first of the year.

A "Coat-of-Arms"

In discussing the National Safety Council's Safe Driver Award program, which recently brought awards to many drivers of the Municipal Railway of San Francisco, Paul J. Fanning, director of the Bureau of Personnel and Safety of that organization, said recently: "The famous Safe Driver Award of the National Safety Council has been developed to a point where it has become the accepted 'coat-of-arms' for the defensive professional drivers who are proud of their ability and their safe driving record. The management of this Railway is very happy to have brought this plan to our employees." Local safety council managers who often are invited to assist in local presentations of awards will find it pays to emphasize that this is a "big league" program in every sense of the word—a project for "champions" only, who thus win distinctive national recognition as well as local honors.

For Office Workers

The safety committee of the Kansas City Junior Chamber of Commerce, working with the Kansas City Safety Council and the Mayor's Traffic Safety Educational Committee, recently distributed 15,000 cardboard discs with the wording, "Work with Safety in

the Heart of America." The discs were distributed at night by janitors in 33 downtown office buildings and greeted employees the following morning when they reported for work.

Primer for Hunters

A novel approach to the hunting accident problem was used on page 1 of the *Rochester Times-Union* (N.Y.) recently, in the form of "A Primer for Every Hunter." It is a series of punchy cartoons with clever copy carrying out the central theme that "After all, a man just doesn't look like a deer." This very effective display is the brain-child of Mr. Charles E. Wiltse, of the *Times-Union* staff. The copy is of course written in second-grade McGuffey Reader style. The *Times-Union* featured the "Primer" on the day before the deer hunting season opened in New York state.

Pasadena Progress

During the past year an Industrial Safety Section with 125 firms, a Commercial Vehicle Section with 27 members, a Women's Activity Section and a Traffic Section with eight hard-working sub-committees, have been organized and are now functioning in Pasadena, Calif., as part of the greatly expanded program of the Pasadena Chapter of the National Safety Council. The Chapter also directs a very successful "Operation Safety" Program in which leading civic organizations are cooperating.

New NSC Chapters

Phoenix—At a meeting of civic leaders in Phoenix, Ariz., November 29, the Greater Phoenix Chapter of the National Safety Council was organized. John Mills, prominent Phoenix capitalist, was elected to the presidency of the Chapter and officers were selected from top business and industrial men of the Phoenix area.

Youngstown—Since the Congress the preliminary work in setting up the Greater Youngstown, Ohio, Chapter of the National Safety Council has been going on. Active in working with the

NSC Field Organization in establishing the Chapter are H. J. Spoerer, director of Industrial Relations, Youngstown Sheet Tube Company and C. W. Kirkpatrick, executive secretary, Youngstown Safety Commission with other prominent industrial and commercial leaders and public officials.

Tucson—The first step toward the creation of the Tucson, Ariz., Area Chapter of the National Safety Council was taken on November 18, in the office of Mayor E. T. Houston of that city. Mayor Houston, in urging that action be taken, promised the services of a group of leaders in the Tucson metropolitan area in financing and organizing the Chapter. San Diego, Calif., is another western city where leading citizens are taking initial steps in organizing a chapter.

Northwestern Cities—Preliminary work in organizing NSC Chapters is also under way in three Northwest cities, Tacoma, Yakima and Richland, all in Washington. Richland is one of the Atomic Energy Commission bases.

13% Fleet Reduction

Celebrating a 13% reduction over last year's accident frequency rate, the annual Fleet Transportation Division award dinner, sponsored by the Los Angeles Chapter, NSC, was held recently in that city. More than 500 attended the affair and 55 no-accident first, second and third place awards were presented by President Jim Bishop of the Chapter. More than 100 companies of the Los Angeles area participated in the contest.

Safety Equipment an Income Tax Deduction

"The cost of strictly safety shoes necessary in the course of employment is an allowable deduction from gross income for Federal Income Tax purposes. The same ruling is applicable with respect to other items of safety equipment."

The above quotation is from a letter received by the National Safety Council from the U. S. Treasury Department dated November 23, 1949.



*Better
Looking!*

*Better
Protection!*

GLASS HATS...

Stronger than Steel

** It's FIBERGLAS*

—resin impregnated. It's remarkably tough—so tough we had to devise new tortures in place of conventional tests to measure its full ability to protect heads. This Hard Boiled Hat is as handsome as they come, in new colors and white . . . or a glow-in-the-dark finish.

EVERYTHING
BULLARD
IN SAFETY

Bullard

A GENUINE
HARD BOILED HAT

MFG. BY
E. D. BULLARD CO.
S.F. - U.S.A.

Hard Boiled Hat

FIRST in Head Protection since 1919

More Resilient—This crown is drum-like in its resiliency. We had a heck of a time making a dent in it with ordinary test objects. The hammocks, too, are like hydraulic shock absorbers.

Lighter weight—lighter by a full ounce than former hats, which is another way of saying wearing comfort is again improved.

Cooler to wear of any protective hat made. Laboratory tests, simulating sun's rays, prove that this hat is cooler than any you've ever worn . . . important to any outdoor worker on any job. Job efficiency increases with employee comfort. Floating hammock permits air circulation, encourages further cooling. For winter, snug-fitting, quickly interchangeable liners protect on even the rawest day.

Lifetime resiliency—Retains full resiliency indefinitely. Will not deteriorate or become brittle with age.

Impervious to moisture. High dielectric strength. Passes all dielectric tests.

Choice of color—White or grey are standard. Also available are red, green, or practically any color on special order. Color is impregnated—all the way through—will not fade or deteriorate.

Save money!—One size fits all heads, reduces inventories. Fully adjustable headband and hammock—self-shaping for comfort. 6-second hammock and headband assembly change. Genuine leather headbands optional.

Start saving money today! \$4.00 will get you the finest head protection ever built. (Costs less in quantity.) Write

E. D. BULLARD COMPANY

275 Eighth Street
San Francisco 3, California
Distributors in principal cities

Allatoona Dam-A Safe Heavy Construction Project

(From page 23)

was equipped with substantially built scaffolds and handrails to facilitate form erection and stripping operations.

Two levels of horizontal walkways across the downstream face of the dam were maintained throughout the entire construction period. A standard type bridge, placed by aerial cableway, was used to extend walkways across open monolith sections. As was the case in all scaffolds and walkways used on this job, the bridges were constructed for heavy duty use.

All concrete placement and yarding was accomplished by cableway. The cableway had a span of 1710 feet, the main cable being a three-inch locked coil cable of 1,100,000 pounds breaking strength. A dual signal system was used between the operator and operating engineer. This system consisted of a hand button which operated the bell and blinker light system, and a two-way telephone operating through a power amplifier. This latter system was especially helpful in tight spots where the operator could direct the operating engineer in spotting loads accurately.

Rigid daily inspection and lubrication were made of the main cable, all operating cables, carriage, sheaves, slack carriers, and the hoisting winch. Each inspection was recorded in the cableway log maintained by the rigger superintendent. Cables were replaced immediately when broken wires were found or excessive wear noticed.

Flambeaus were used on the cableway carriage and load block to assist the operator and operating engineer in spotting loads on night operations.

An ingenious method was devised for opening and closing the eight yard concrete bucket used for concrete placement via aerial cableway. In the early stages of the job the bucket was tripped by a lever with a long rope hanging down. Several men were required to trip the bucket and the surge of the bucket made this indeed a dangerous operation. A pneumatic control was devised with a pneumatic hose safety coupling similar to that used in connecting railroad cars. In the event of a heavy surge of the bucket the coupling would automatically break loose, thus the employee controlling the air valve

was not endangered by the surging bucket. In addition to removing practically all hazard from the placement operation, the pneumatic control permitted a rigidly controlled rate of placement of concrete.

Lighting for the job was provided with fifty 1000-watt floodlights, on 30-foot centers, suspended alongside the cableway. These lights were serviced from a cableway man skip. Additional fixed lighting was provided by batteries of reflector flood lights mounted on each abutment and focused on the work areas. These fixed lights were controlled by photo-electric cells, thus eliminating the human factor in turning them on when needed. Portable stand lights were also used to supplement the overhead lights in all work areas. Further efficiency of lighting was achieved by the use of weather resistant light bulbs, which prevented breakage due to rain, and cutting and curing water.

As on all Corps of Engineers heavy construction projects, this was a 100 per cent hard hat job. Each new employee, no matter what his classification or duty assignment, was issued a hard hat. The use of hard hats and other protective apparel was strictly enforced. These hats alone prevented a number of serious and perhaps fatal

Left: Scaling rock on steep banks. Safety belts, life lines and hard hats were worn by all men on this operation. Right:

Pneumatic control mechanism for concrete bucket. Operating piston is in center and control connection at left.



injuries. Numerous cases are on record where employees sustained disabling injuries which would have unquestionably been fatal had not the employee been wearing a hard hat. It didn't take long on this job for a new employee to see the wisdom of wearing his hard hat all of the time.

Boots with steel inner-soles were issued to all concrete workers and form building and stripping crews. Safety belts were used by all rock scaling crews. Goggles, respirators, masks and such other protective equipment and apparel as was required was issued in accordance with job needs.

The use of kapok life vests was mandatory for all work on or over water where there was no handrail protection. This applied particularly to cofferdam erection and removal, scaffold construction, and clean-up by skiff.

At least once each month, and sometimes oftener, a staff meeting of all key supervisors was called and presided over by the contractor's project manager. All accidents which occurred since the last meeting were discussed—sometimes very heatedly. Minor injury cases were reviewed for the purpose of indicating accident trends and taking remedial action before a more serious injury occurred. These meetings were also devoted to coordinating the various job activities, and making safety plans for future activities.

Safety training for new employees was begun immediately after employment. The employee was given a printed pamphlet which stated the basic safety rules for the general work. He was then escorted to his foreman, who gave him detailed instructions as to what he was to do and how he was expected to do it. He was then put to work in the company of an experienced workman who worked with the new employee until he became proficient in his job.

Safety instruction of workmen was given mainly by gang leaders and crew chiefs by means of tool box type safety meetings of two to three minutes duration.

The use of open fires for warming in cold weather was prohibited. Salamanders were made from 55-

—To page 75

NEW!

C-O-TWO

DRY CHEMICAL TYPE FIRE EXTINGUISHER



EXCLUSIVE DESIGN

assures you of fast, positive
fire protection

SELF-CONTAINED UNIT . . . rugged construction . . . no extra gadgets protruding or complicated operating parts . . . one of the most efficient, foolproof, easy-to-use fire extinguishers known . . . two convenient sizes, 20 pound capacity and 30 pound capacity.

C-O-TWO DRY CHEMICAL STAYS FREE FLOWING . . . no syphon tubes or valves within the cylinder to become clogged or inoperative . . . discharge hose and squeeze type discharge nozzle remain empty until the fire extinguisher is actuated. Inverting the fire extinguisher before using provides mechanical breakage by changing the position of the dry chemical in the cylinder. Bumping to actuate the fire extinguisher provides additional mechanical breakage as well as continuous carbon dioxide gas pressured agitation or fluffing of the dry chemical. These combined features plus a skillfully blended free flowing extinguishing agent assure you of a faster, more effective and complete discharge.

APPROVED . . . Underwriters' Laboratories, Inc. rating is B-1, C-1. C-O-TWO Dry Chemical is non-conducting, non-corrosive, non-abrasive, non-freezing and non-toxic . . . highly effective on flammable liquid and electrical fires.

RECHARGEABLE ON-THE-SCENE . . . no special tools needed . . . one piece removable top assembly leaves large unobstructed opening in the top of cylinder for refilling. C-O-TWO Dry Chemical for recharging is available in handy pre-measured moisture proof containers.

Write today for complete free information on this
new, quick-acting fire extinguisher . . . no obligation.

C-O-TWO FIRE EQUIPMENT COMPANY
NEWARK 1 • NEW JERSEY

Sales and Service in the Principal Cities of United States and Canada
AFFILIATED WITH PYRENE MANUFACTURING COMPANY

Industrial Health

Highlights in Industrial Medicine, Hygiene and Nursing
Compiled by F. A. Van Atta, Industrial Department, NSC

Smog in Los Angeles

The Smog Problem in Los Angeles County. Second Interim Report by Stanford Research Institute on Studies to Determine the Nature and Sources of the Smog. Published by the Committee on Smoke and Fumes of the Western Oil and Gas Association, 510 West Sixth Street, Los Angeles 14, Calif.

The Los Angeles smog is unusual in comparison with other cities in that it is never associated with fog. It is produced by a complex mixture of solid and liquid droplets which give a general murkiness in the air and frequently irritates the eyes. The eye irritation is more severe in Los Angeles than in other cities.

It has required a searching inquiry to discover the origins of the contamination producing smog and the mechanism by which the smog is produced. The petroleum industry has become interested in and has studied the problem for more than ten years. In the course of the work it became obvious that personnel and techniques not found in industrial laboratories would be required and the services of the Stanford Research Organization were engaged in 1947 to push the inquiry.

The Institute has run a long series of analyses of the contaminants in the Los Angeles air and has found more than 40 which occur regularly or periodically and at least seven others found occasionally. These contaminants include gases, liquids such as oil droplets and sulphuric acid droplets and solid materials such as metals, metal compounds or organic fibers. The haziness produced by the smog has been shown to be the result of the solid particles, both by analysis of the air and by the production of the same condition artificially in a chamber built for the purpose. The liquid

materials capable of forming moisture droplets in the air, principally sulphur trioxide, also accounts for some of the decrease in visibility.

There is frequently a natural haziness in the Los Angeles area which is thought to be caused by dust, pollen, fibers, salt and other materials of earth, ocean, plant and animal origin. This natural haziness is greatly increased by contaminants of human origin in the Los Angeles Metropolitan district.

The contaminants are always present in the air but the smog occurs only periodically. The meteorological conditions necessary to the formation of the smog are now understood well enough that its occurrence can be predicted several days in advance. One of the main considerations is the frequent occurrence over Los Angeles as a warm layer of air known as the Pacific inversion layer. This layer of air warmer than the air at the surface acts as a lid over the area.

Contaminants originating anywhere in the Los Angeles basin are carried up to the base of the inversion layer where they accumulate. When a considerable amount of contamination has accumulated at the base of the inversion layer and heating of the ground by sunshine recirculates the contamination to the lower strata of the surface layer, conditions for smog are set up. These smog clouds are then moved back and forth across the area by horizontal surface breezes.

The eye irritation produced by the Los Angeles smog has been the cause of much speculation and various contaminants of the atmosphere have been singled out to be blamed for it at various times. The best evidence at the present time is that no single contaminant is

present in sufficient quantity to produce eye irritation. The substances involved are formaldehyde, ammonia, sulphur dioxide, sulphur trioxide, oxides of nitrogen, acrolein, ozone, carbon particles and oil.

It has been shown by making artificial mixtures of these substances in the fog chamber that the combination in the concentrations found in the Los Angeles area can produce eye irritation. No one of the substances individually in the same concentration has been found capable of producing eye irritation. There is a characteristic odor about the smog which has not as yet been accounted for, so it is possible that there are other, as yet undetected, materials in the air which may produce irritation and odor.

Research is now going on to determine the sources of the contaminants known to occur in the air, to characterize more certainly some of the oxidizing materials found in fairly large concentrations and to locate any previously unidentified materials, to determine the possible reactions among the contaminants in the air and to determine the specific contribution of various industries and processes to the production of the smog.

Alcoholism

Alcoholism Among Disciplinary Cases in Industry, a Preliminary Study. By Cyril C. O'Brien. Quarterly Journal of Studies on Alcohol 10:268-278 (September, 1949).

No attempt was made in this study to discover the number of alcoholics in the particular plant in which the study was carried on. The investigation was confined to a study of individuals who had been subjected to disciplinary action in the plant because of excessive drinking. Over the period of 31 months which was studied 16 per cent of the disciplinary cases involved the use of intoxicants. The total number represented about 1 per cent of all employees in the plant and about three-fourths of them were classed as

compulsive drinkers or alcoholics.

The company involved had set up a committee for the study of problems of alcoholism. This committee set up the following code of aims and objectives for its own guidance:

General Aims:

1. To determine the nature of excessive drinking among employees of this company, insofar as these phases of the problem interfere with the efficient execution of duties.

2. To assist individuals who are so afflicted to gain control and orientation, which will enable them to become successfully rehabilitated to sane and normal habits of living.

3. To give sympathetic consideration to the group of excessive drinkers who have reached the stage of alcoholism. Since such persons are a burden to themselves, their families, their employers and even the entire community, to promote the application of practical methods of alleviating their distress.

4. To keep in close touch with the various social, medical, educational and legal agencies that are devoting time and effort to the study of alcoholism.

5. To keep apprised of the latest developments in the field by a perusal of practical literature on the subject.

6. To maintain a research outlook in order to utilize all feasible suggestions that will aid in reducing the extent of alcoholism and tend as far as possible toward the ultimate elimination of its effects in the plant.

7. The adoption of an educational program that will stress prevention rather than cure.

Specific Objectives:

1. To conduct a confidential survey in areas of the plant where there is sufficient evidence of the effects of alcoholism and excessive drinking contributing to absenteeism.

2. To make a diagnosis of individual employees who are wholly or partially in the grip of alcohol

—To page 90



This drop-forged ring is permanently attached to each ACCO Registered Sling Chain. All essential identifying information shown on both sides of Ring, as illustrated, protected by outer flange.

Certified

BY AMERICAN CHAIN

"The Nation's Chainmaker"

We believe that the best way to build safety into Sling Chains is to make each one individually—to inspect it and test it as though it were made to special order.

From that belief came the idea of ACCO Registered Sling Chains. Each sling chain made by AMERICAN CHAIN is Registered. Each one carries a Certificate of Test and Warranty. Every one is identified by a permanent metal ring on which is stamped all essential identifying information.



SEND for this catalog which contains information on how to select, use and care for sling chains. It is **DH-20**.

ACCO

York, Pa., Chicago, Denver, Detroit, Pittsburgh, Portland, San Francisco,

Los Angeles, New York, Philadelphia Bridgeport, Conn.



**AMERICAN CHAIN DIVISION
AMERICAN CHAIN & CABLE**

In Business for Your Safety

THE ACCIDENT BAROMETER

Prepared by the Statistical Division, National Safety Council

The downward trend of accidental deaths continued through September. The death total for September was approximately 7,300, a 10 per cent decrease from the September, 1948 total of 8,100. Most of the reduction occurred in deaths from occupational and public non-motor-vehicle accidents, but deaths from home injuries also decreased.

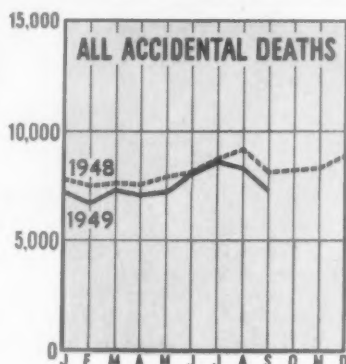
The death total for the nine months was about 68,400, or 6 per cent less than in 1948. There was a sizable decrease in public non-motor-vehicle deaths and moderate decreases in fatal home and occupational accidents. Motor-vehicle deaths showed a slight reduction from the first nine months of 1948.

Motor-Vehicle Deaths

The motor-vehicle death total for September was 3,060, about the same number as occurred in 1948 and 2 per cent above the September, 1947 figure of 3,007.

Deaths for the nine months totaled approximately 22,320, a reduction of 2 per cent from the 1948 comparable figure of 22,750. Compared to 1947 it was a reduction of 5 per cent. The death rate per 100,000,000 vehicle miles was 7.1, an 8 per cent decrease from the 1948 nine-month rate of 7.7 and 37 per cent below 11.2 for 1941.

Of the 44 states reporting for nine months, 26 reported fewer deaths than in 1948, one had the same number, and 17 had more



	1949	1948	Change
September	7,300	8,100	-10%
Nine Months	68,400	72,600	-6%

deaths. Reporting cities with populations over 10,000 had a decrease of 14 per cent for September and 10 per cent for the nine months.

Regional changes from 1948 in the nine-month death totals were:

North Atlantic	-2%
South Atlantic	+3%
North Central	-3%
South Central	-5%
Mountain	-10%
Pacific	-4%

Occupational Accidents

Deaths from occupational accidents numbered approximately 1,200 in September, or 200 fewer than in 1948. The total for the nine months was about 11,400, a decrease of 8 per cent from 12,400 in 1948.

The September frequency rate for plants in community council interplant contests was 9.10, a 19 per cent reduction from 1948. The

September rate for plants in the seven National Safety Council sectional contests was 6.94, a decrease of 15 per cent from 1948. The nine-month rate in the community council contests was 9.32—down 21 per cent; while in sectional contests it was 6.93, a decrease of 20 per cent.

Public Deaths

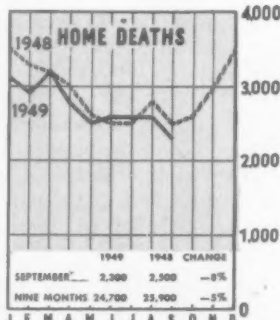
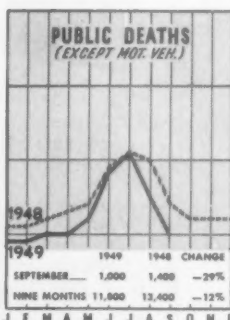
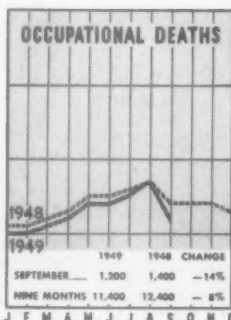
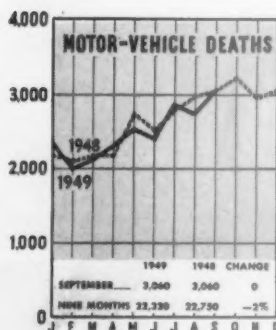
The death total for public non-motor-vehicle accidents in September was approximately 1,000, a reduction of 400 deaths from September, 1948.

Deaths during the nine months numbered about 11,800, a decrease of 12 per cent from 1948. There was a sizable decrease in fatal falls, moderate decreases in deaths from firearms and transportation, and a small decrease in fatal burns. A slight increase was recorded in drownings. Most of the reduction occurred among persons 65 years old and over but deaths of persons 15 to 65 years also decreased.

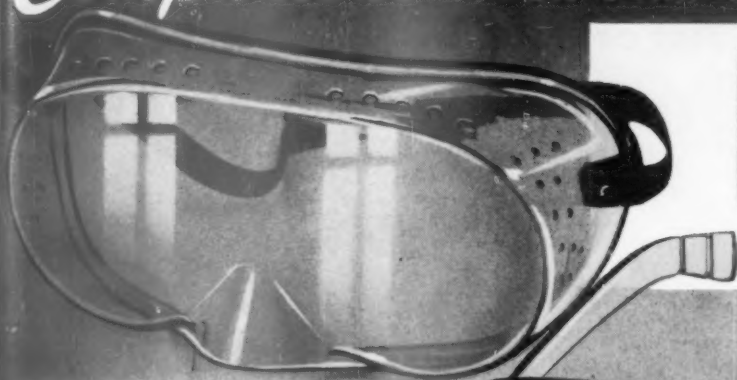
Home Deaths

September deaths from home accidents numbered approximately 2,300, or 200 less than occurred in September, 1948.

The nine-month death total was 24,700, a reduction of 5 per cent from 1948. Decreases were principally in fatal poisonings and burns, but deaths from falls and firearms accidents also decreased. Deaths from mechanical suffocation showed a moderate increase over the first nine months of 1948. Decreases were reported in all age groups, with the greatest improvement recorded for children 5 to 14 years old.



Companions... FOR COMPLETE EYE PROTECTION



SAF-I-SPEC

Smart Appearance

Instant Snap-On Temples

Made of "Optilite"—weigh less than one ounce. Temples clip on or off instantly—easily adjusted to fit any wearer's face. Tough—rugged—this is the spectacle safety men have been waiting for.

LOW COST.



SAF-I-SHIELD

All Purpose Safety Goggle

Made of "Optilite"—lightweight, optically correct, strong, comfortable. Can be worn over prescription glasses—one size fits everyone. A goggle everyone will wear with pride.

UNITED STATES SAFETY SERVICE CO.

KANSAS CITY 6, MO. • BRANCHES IN PRINCIPAL INDUSTRIAL CITIES



"KNEE DEEP"
IN SAFETY WITH



JUDSEN MOLDED RUBBER KNEE PADS

- TOUGH MOLDED RUBBER
- SOFT SPONGE INSERT
- ADJUSTABLE STRAPS
- NON-SLIP WAFFLE TREAD
- MOISTURE RESISTANT
- LIGHT IN WEIGHT

Can you afford to let your workers suffer, disabling knee ailments and injuries when they can be "knee deep" in the protection of JUDSEN KNEE PADS? The safety of JUDSEN KNEE PADS is proved by thousands of workers who enthusiastically use them to work long hours on rough, hard or damp surfaces. Workers can wear them all day long—kneeling, standing, or walking. They're the safest, longest wearing, most comfortable knee pads available!

Avoid the many hazards of unprotected knees—make a profitable investment in knee safety that will pay off in more efficient work and LESS TIME LOST.

ORDER TODAY from your jobber or write direct.

JUDSEN RUBBER WORKS, INC.
Chicago 24, Illinois

Established 1901

Steel Strapping—Flat or Round

(From page 33)

that he is facing in the direction of pull with one foot ahead of the other. Then, if the strap should break or the strapping tool slip, he will be in position to protect himself against possible injury.

26. When final tension is being attained, the operator should get out of direct line of the strap so that ends of a broken strap will not strike his face or body. If a workman is required to work on top of large crates or shipments, he should kneel to one side and never straddle the strapping.

27. Proper tension on the strap or wire prevents breakage not only when pressure is applied on the handle of the fastening tool but also when bound merchandise is handled in shipment.

28. To secure proper tension, excessive pressure should not be applied on the manual strapping or wire binding device and the automatic machines should be set correctly. The danger of breakage can be almost completely eliminated if supervisors or experienced

operators give careful instructions to men handling these devices for the first time and follow up to see that instructions are carried out.

29. When tension is applied on a band over sharp corners and edges, care must be taken to avoid shearing the band. Most manufacturers find it advisable to provide padding or special corners on sharpened solid corners to prevent damage to the merchandise and to keep the band from breaking. These protective corners are available through strapping suppliers.

30. If it is necessary to nail strapping in order to hold it in place, pre-punched bands should be used. Attempting to nail through unpunched strap may cause the nail to slip and fly. If a strap must be nailed and special punched bands are not available, it is essential that the man doing the work and all workers in the area wear proper eye protection. Stapling of straps is the best practice.

31. All excess strap beyond the tension-holding seal should be broken or cut off before a bound container is considered safe for further handling or shipment. Most strapping is made of steel or other metals which can easily and cleanly be broken if two or three sharp bends are made in the strap close to the seal.

32. When a workman is placing steel strapping under a con-



Figure 6. Removing anchor plates after cargo and straps have been removed from railroad car. Note special tool used.

tainer, anyone waiting on the opposite side for the wire or band to be pushed through should keep his face clear and wear goggles. In a number of cases, a man has kept his face close to the floor to watch for the band or wire and has been struck in the eye.

Handling Steel-Strapped Containers

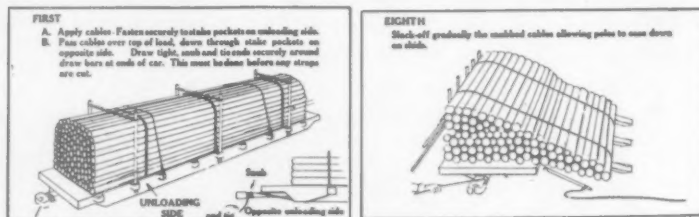
33. Before attempting to move bound merchandise or material, the workman should examine it to see that there are no broken bands or loose ends. Broken bands should be removed and safely disposed of and if possible replaced to keep the shipment from coming apart. When shipments with broken bands are handled, workmen may be injured if contents fall from the containers, or the packages separate.

34. A box, carton, or package should never be handled by the steel

Figure 5. Looping steel strap used for car loading back under staples prevents men who are loading or unloading cars from being snagged.



Figure 7. These two sketches, taken from a pamphlet published by a manufacturer, show the first and last steps in the unloading of carloads of telephone poles. Pamphlets for loading and unloading involving steel strapping are available from manufacturers.



SAFETY Bell Ringers

Here is a time saver for busy safety men.

SAFETY BELL RINGERS is a 24-page booklet crammed full of safety slogans with plenty of "hear appeal" . . . brief striking phrases that will spark up your campaigns and help you hatch ideas for your bulletin boards. And if you are looking for just the right punch-line for that safety speech or plant paper, SAFETY BELL RINGERS has the answer. The slogans are catalogued for easier selection. You'll find just the right slogans for your particular need.

A good slogan can help rally your workers in the battle against accidents. Send for your SAFETY BELL RINGERS booklet, today.

Member	1	10	100	1,000
Prices	to 9	to 99	to 999	or more
	.30	.25	.20	.20

Non-Member prices double

NATIONAL SAFETY COUNCIL

20 N. WACKER DRIVE, CHICAGO 6, ILLINOIS

Stay Work-Able.
Give Children a Brake!
School's Out—Watch Out.
You Can't Stop On An Icy Dime.
Don't Let Home Be Where The Hurt Is.
Let's Have No Hearse-Play On The Job.
Never Be Haphazard With A Fire Hazard.
"Take-A-Chance" Rides In The Ambulance.
Even One Accident Is One Too Many.
Let Your Family Benefit By Your Safety.
Be Careful Today: Be Safe Tomorrow.
Ease-Up When There's A Freeze-Up.
The Factory CUT-UP Often IS.
First Aid First.

300 TIME TESTED SAYINGS

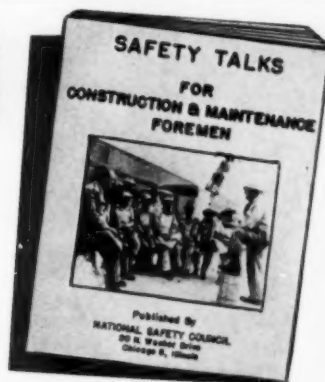
400 WINNING CONTEST SLOGANS

CONSTRUCTION and MAINTENANCE MEN

NOW . . . for the first time

Fire • First Aid • Housekeeping • Heavy Equipment • Material Hoisting • Falls • Electricity • Transportation • Welding and Cutting • Hand and Portable Electric Tools • Handling and Storing Materials • Ladders and Scaffolds • Fiber and Wire Rope • Personal Protective Equipment • Protection to the Public • Power Saw Operation • Demolition • Clearing • Excavation • Concreting • Steel • Blasting • Pile Driving •

58 brand new SAFETY TALKS for Construction and Maintenance Foremen



Packed into this 96-page booklet are safety talks developed for the use of the foremen on construction or maintenance work. Written by members of the Executive Committee, Construction Section, National Safety Council, these hard-hitting five-minute talks cover everything from why accident prevention to blasting operations. Written in the language of the foremen, with a flexibility that opens entirely new possibilities. A page of instructions tells your foremen how to use the 58 safety talks—not as speeches to be read, but as sources of information. Gets down to details on how to conduct "tool box" meetings that pack a punch like a bulldozer. See for yourself, what wide application SAFETY TALKS FOR CONSTRUCTION AND MAINTENANCE FOREMEN has in your safety program. Send in your order, now.

MEMBER PRICES	1 to 9	10 to 99	100 to 999	1000 or more
	1.50	1.30	1.25	1.20

non-member prices are double

NATIONAL SAFETY COUNCIL 20 NORTH WACKER DRIVE
CHICAGO, ILL.

Add a **BIG SAFETY** FACTOR to your hoist

A Laughlin Safety Hook will boost the "safety efficiency" of your hoist many times . . . protecting workers against injury and equipment against damage from accidentally slipping loads.

Make sure your next Hoist is equipped with a LAUGHLIN SAFETY HOOK

Specify "Laughlin Safety Hooks" when ordering new hoists from your distributor. They pay for themselves many times over in accidents avoided.

Play safe — change over your present Hoist Hooks to LAUGHLIN SAFETY HOOKS

Order from your distributor according to the size now on your hoisting equipment . . . or state the capacity of your hoist and he will furnish the correct Laughlin Safety Hook to fit your needs.



Drop-forged steel, heat-treated . . . stainless steel spring with pressed steel latch. Cast bronze latch on larger sizes. Available for 1/2 to 15 ton safe working loads.

Send for Laughlin's famous data book of fittings — ask for Catalog #145. THE THOMAS LAUGHLIN COMPANY, DEPT. 9, PORTLAND 6, MAINE.

LAUGHLIN

THE MOST COMPLETE LINE OF DROP-FORGED WIRE ROPE AND CHAIN FITTINGS



There is a LAUGHLIN SAFETY HOOK for every HOISTING or MATERIALS-HANDLING JOB



3310
1/2 to 15 tons



3220
1/2 to 15 tons



3316
1/2 and 1 ton



3315
750 pounds

bands or wires either manually or with a lift truck or other mechanical handling device. Many injuries in the handling of strapped shipments occur when workmen grasp the bands or wire and are cut by the undue pressure of the steel, or when the binding material breaks and the box or package drops.

35. When a bound load is handled with a fork lift truck or crane, the load should be picked up near the strap or wire but not on or over it if possible.

36. Care should be taken to eliminate voids under skids which are to be handled by a fork lift truck because the undue pressure in lifting may cause the binding to break and fly. Care should also be taken that bound material is not piled in such a way that stress is put on the strapping or binding material.

37. Men should never use the straps or wire on bound and stored shipments for climbing, either as a support for the feet or as a hand hold.

38. Stored packages, boxes, cartons, or other material should be checked for loose or protruding banding ends that might cut or otherwise injure people going by the stacked merchandise.

Removal of Steel-Strapping or Wire

39. To remove strapping from bound containers, a cutter designed for the work, which does not put additional tension on the banding material, should be used. Most manufacturers of steel strapping can furnish duck-billed shears, which are preferred by many companies for cutting strapping, or can recommend suppliers. Other companies use long-handled cutters which allow a worker to keep his hands, face, and other parts of the body away from the strapping when it is being cut.

40. Workmen should not use a claw hammer, crowbar, chisel, or other tool to apply leverage and break the steel strap. Uncontrolled pressure secured with such tools will cause the band or wire to fly with additional, and often disastrous, force.

41. Before cutting strapping, workmen should make sure that no one is standing where he might be hit by loose ends of strap.

42. To cut bands safely, experienced operators advise placing one gloved hand on the strap. Then if the strap springs, it will be held to one side and fly away from the operator's face. In addition, the face should be kept out of direct line of the strap or wire.

43. Often the rebound due to the release of compression on articles strapped with heavy strapping is too strong to control with the hands, and the men must rely on keeping out of direct line, plus wearing protection on especially vulnerable parts of his body.

44. The workman doing the cutting should be told the nature of the strapped product because in some cases when pressure has been released, violent action of the material has caused it to move from skid rails or table. This knowledge is especially necessary in the case of auto springs, mattresses, or similar products that can recoil violently.

45. Strap should be cut square, never at an angle. Strap cut at an angle has much sharper ends. Cutting tools are available that cut strapping in such a way that it is impossible to get sharp ends.

46. A container for scrap steel should be close at hand so that each piece can be safely disposed of as it is cut off. Short scrap ends should not be left lying around. Curved or bent pieces, especially, are tripping hazards and when stepped on often fly up to cause cuts.

47. If the disposal containers must be emptied by hand, the men doing the job should wear gloves and goggles. Mechanical handling and dumping is best if practical.

Carloading or Unloading

48. When a car is draped for loading, all ends of draped straps should be turned back and stapled to the car wall so that the men will be in no danger of running into loose ends. When it is necessary to switch partially loaded or partially unloaded gondola cars, no straps should hang over or beyond the car sides.

49. Often it is necessary for a



Another Fire BLOCKED

Flames that demolished the warehouse shown above couldn't get through the Kinnear Fire Door in the background. The adjacent factory wing was completely saved, as shown in the photo below! In scores of similar cases, Kinnear Automatic Fire Doors have averted costly and tragic fire losses.

These famous AKBAR Fire Doors (a Kinnear product) offer automatic protection wherever doorways or similar openings are apt to cause fire-spreading drafts. They feature positive spring-down closure . . . safe, *speed-controlled* downward travel . . . automatic stoppage

By KINNEAR
(Akbar) Rolling
FIRE DOORS

NO LOSS Here!



at floor level. They are easily raised after closure for emergency exit, closing again automatically. They often lower insurance rates enough to pay for themselves in two or three years! Write for details.

The KINNEAR Manufacturing Company

FACTORIES: 1720-40 Fields Ave., Columbus 16, Ohio

1742 Yosemite Avenue, San Francisco 24, California

Offices and Agents in Principal Cities



KINNEAR

ROLLING DOORS

man to work on a ladder when using tools to stretch steel bands. It is wise to have the ladder held by another man who is fully aware of the dangers of broken bands and falling merchandise. To apply or remove high straps, a sturdy work platform is preferable to a ladder.

50. One of the basic reasons for using strapping on car doors is to reduce the hazard of falling merchandise. However, when opening the door of a loaded car, men should stand clear of the door and use a car door opening device if one is available.

51. The grain trade uses a cardboard grain door reinforced with steel strap. Workmen should be warned about the danger of protruding sharp strap in these cardboard doors. After removal, they should be deposited in a safe place and not left to be walked on.

52. Before cutting the steel straps which bind the carloading units, workmen should make sure that there is no possibility of strain if a load should shift. This precaution is especially necessary in the case of tall objects like linoleum or rug rolls that might be leaning against the straps and fall on the men when the straps are cut. The load should be shifted from the back to the car door to put each box or carton at ease before any attempt is made to remove the steel strap.

53. Before merchandise is removed from the car, all draped straps should be looped back under the anchors or stapled so that they will in no way injure workmen.

54. When the car is empty, all steel strapping should be removed so that it will not be a hazard to the next user of the car. Tools are available for easily removing the anchors, which, with the strapping and fasteners used in shipment, should then be disposed of in a safe and orderly way. Cars are often left with steel strapping carelessly flapping out doors - a dan-

ger to railway men and workmen all along the line.

55. Procedures, often on scale or full size models, have been worked out by steel strapping manufacturers for both loading and unloading special loads on cars. For example, for the unloading of wood poles, which can be an extremely hazardous operation, the manufacturers provide written and illustrated material outlining each step of the job. In case of doubt, it is well to check with the manufacturers.

First Aid

56. It is essential that all injuries, no matter how minor, be reported to the first-aid department. This precaution is particularly important in the case of shipments received by rail or other carrier where tetanus-infecting bacteria may be prevalent because of exposure to cattle shipments.

Acknowledgment

This data sheet was prepared by R. G. Benson, senior engineer, Industrial Department, National Safety Council. It was reviewed by the Safe Practices Conference Committee and approved by the Industrial Conference of the Council.

COMING EVENTS

In the Field of Safety

1950

Feb. 2-3, Milwaukee, Wis.

Annual Midwinter Safety Conference and Exposition, Wisconsin Council of Safety. H. A. Klemm, Secretary-Treasurer, 1 West Wilson Street, Madison 2, Wis.

Mar. 5-7, Memphis, Tenn.

Southern Safety Conference. Braxton B. Carr, secretary-treasurer, 2120 First Ave., North, Birmingham 3, Ala.

Mar. 7-8, Philadelphia

Sixteenth Annual Regional Safety Conference and Exhibit. (Bellevue-Stratford Hotel.) Walter W. Matthews, managing director, Philadelphia Safety Council, Chamber of Commerce, 17th and Sansom Streets, Philadelphia 3, Pa.

Mar. 20-21, Boston

Twenty-ninth Annual Safety Conference and Exposition. Edgar F. Copell, president, Massachusetts Safety Council, 31 State St., Boston 9, Mass.

Mar. 28-31, New York

Twentieth Annual Safety Convention and Exposition, Greater New York Safety Council. (Hotel Statler). Paul F. Stricker, executive vice-president, Greater New York Safety Council, 60 East 42nd Street, New York 17.

Apr. 5-8, Charleston, W. Va.

West Virginia Annual State-wide Safety Conference. W. C. Easley, managing director, West Virginia Safety and Health Council, 316-17 Masonic Bldg., Charleston, W. Va.

Apr. 11-13, Columbus, Ohio

Twentieth All Ohio Safety Congress and Exhibit. (Neil House). James H. Fluker, chairman; G. S. Kallenbaugh, congress manager, 65 South Front St., Columbus 15, Ohio.

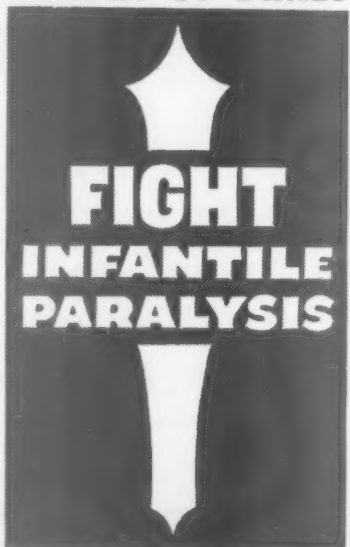
Apr. 12-13, Buffalo, N. Y.

Tenth Annual Western New York Safety Conference. (Hotel Statler). Eugene C. Hohlstein, c/o Buffalo Div., Blaw-Knox Co., 1543 Fillmore Ave., Buffalo, N. Y.

Apr. 18-20, St. Louis, Mo.

Central States Safety Conference. (Hotel Jefferson). Reyburn Hoffman, secretary-manager, The Safety Council

MARCH OF DIMES



JANUARY 16-31



20 FOOT BARS— STORED AND HANDLED EFFICIENTLY

It is not only faster and easier to store and handle stock this way, but safety is greatly improved.

WITH a simple rack arrangement and overhead tramrail crane to serve it, long unwieldy steel stock can be stored in an orderly fashion and grouped according to shape, size and alloy.

The smooth rolling crane with hand-propelled or electric hoist makes it easy for a man to handle the bars in and out of the rack and deliver them to the saws or machine tools directly without rehandling.

What a vast improvement this is over the haphazard time-consuming way of storing and handling stock still prevalent in so many plants today. There is no tugging, lugging and back-breaking lifting while

searching for stock needed. The stock is always in its place where it is quickly found. There is no uncertainty as to the amount on hand, because the supply is out in the open where it can always be seen.

Hundreds of metal-working plants and steel warehouses are now enjoying the many advantages that Cleveland Tramrail equipment provides. There are installations of every type from simple hand-propelled carriers and cranes to complete automatic systems that transport materials without need of accompanying operator.



GET THIS BOOK!

BOOKLET No. 2008. Packed with valuable information. Profusely illustrated. Write for free copy.

CLEVELAND TRAMRAIL DIVISION
THE CLEVELAND CRANE & ENGINEERING CO.
6503 EAST 284TH ST. WICKLIFFE, OHIO

CLEVELAND  TRAMRAIL
OVERHEAD MATERIALS HANDLING EQUIPMENT



How much TOO MUCH do accidents cost you?

Accidents are costly enough. But if they include slips and falls, you're paying *premium* prices.

Slips and falls run about 18% of compensated industrial accidents; yet account for about 23% of compensation payments. That's a 28% "overcharge" on every case. Expensive accidents.

Much too expensive when it costs so little to establish a program with the Legge System of Safety Floor Maintenance.

It can help you make grease-drenched plant floors slip-resistant for only 35c per square foot; polish administrative floors to a safe, attractive lustre for as little as 16c per square foot per year. And, absolutely free, you can

have a Legge Safety Engineer develop a master floor safety maintenance plan: teach your crews safety methods and streamlined techniques that save housekeeping dollars.

This Legge System of Safety Floor Maintenance plan has reduced slippery floor accidents up to 95%; cut insurance costs as much as 42%. And, as a bonus, it has saved up to 69c of every floor maintenance dollar.

You owe it to yourself to explore this proven accident- and cost-cutting method. For full details, clip the coupon to your letterhead and mail. Walter G. Legge Co. Inc., New York 17, N. Y. Branch offices in principal cities.

Walter G. Legge Co. Inc.
101 Park Ave., New York 17, N. Y.
Without obligation, please send me complete details on the Legge System.

Signed _____

Title _____

Types of flooring _____

Area: _____ Sq. ft. NB-4

LEGGE SYSTEM
of Safety Floor
Maintenance

Copyright 1949 by
Walter G. Legge Co., Inc., N. Y.

See Us at Booth No. 420, Plant Maintenance Show, Cleveland, Ohio, January 16-19.

of Greater St. Louis, 511 Locust Street, St. Louis, Mo.

Apr. 23-29, Chicago

American Association of Industrial Physicians and Surgeons, 35th Annual Convention. (Hotel Sherman). Dr. Edward C. Holmblad, 28 East Jackson Blvd., Chicago 4.

Apr. 23-29, Chicago

American Association of Industrial Nurses, Annual Conference. (Hotel Sherman). American Association of Industrial Nurses, Inc., Room 909, 654 Madison Ave., New York 21.

Apr. 24-25, Toronto, Ont.

Annual Convention, International Accident Prevention Associations. (Royal York Hotel). R. B. Morley, general manager, International Accident Prevention Associations, 600 Bay St., Toronto 2, Canada.

May 2-4, Chicago

Twenty-seventh Annual Midwest Safety Show. (Hotel Sherman). Joseph F. Stech, manager, Greater Chicago Safety Council, 10 North Clark Street, Chicago 2.

May 2-4, Pittsburgh, Pa.

Twenty-fifth Annual Western Pennsylvania Safety Engineering Conference. (William Penn Hotel). Harry H. Brainerd, executive manager, Western Pennsylvania Safety Council, Chamber of Commerce Building, Pittsburgh 19, Pa.

May 3-5, Charlotte, N. C.

Twentieth Annual North Carolina Statewide Industrial Safety Conference (Hotel Charlotte). H. S. Baucom, safety director, North Carolina Industrial Commission, Raleigh, N. C.

May 18-19, Duluth, Minn.

Lake Superior Mines Safety Council, 26th Annual Conference. (Hotel Duluth). John A. Johnson, supervising engineer, U. S. Bureau of Mines, 18 Federal Bldg., Duluth 2, Minn.

June 1-3, Roanoke, Va.

Sixteenth Annual Virginia State-wide Safety Conference. (Hotel Roanoke). William M. Myers, managing director, Richmond Safety Council, Allison Bldg., Richmond 19, Va.

June 18-21, Boise, Idaho

Western Safety Conference. Paul V. Black, president, c/o Idaho Compensation Co., Boise, Idaho.

Oct. 16-20, Chicago

Thirty-eighth National Safety Congress and Exposition. (Stevens Hotel). R. L. Forney, general secretary, National Safety Council, 20 North Wacker Drive, Chicago 6.

WANTED

Large mining company in South America requires services of experienced safety engineer to take charge of all phases safety work in mining, milling and smelting operations. Spanish essential. Age 35 to 45. Married quarters, liberal three-year contract, transportation. Reply Box 403 NATIONAL SAFETY NEWS.

Personals

EDGAR G. QUESNEL, director of safety for the Borden Company, has been elected president of the Safety Executives Club of New York. The club is devoted exclusively to the study and discussion of safety policy and trends. Membership is limited to executives who formulate safety policy for their firms.

A graduate of Washington University in St. Louis, Mo., Mr. Quesnel became actively interested in safety work after World War I, while serving as superintendent of an oil refinery in Madison, Ill. In 1921 he became safety engineer for the Commonwealth Steel Company in Granite City, Ill.

Mr. Quesnel then entered government service, first as safety engineer for the St. Louis area, and later as safety director for the State of Kentucky. He rose to the position of assistant to the director of safety, in charge of 13 Midwestern states. In the fall of 1937, he joined the Borden Company.

Last year, he was appointed by the U. S. government to represent U. S. management at a special conference on accident prevention in Geneva, Switzerland. The conference, sponsored by the International Labor Organization and attended by representatives from 25 countries, was held in October.

During World War II, he was regional director for the U. S. Department of Labor, supervising safety for war industries in six Eastern states. For his outstanding work, he received a citation of merit from the Secretary of Labor.

Safety Publications In Spanish

Aids for conducting safety programs in Spanish-speaking areas are listed in the recent catalog of the Inter-American Safety Council, 2 Rector Street, New York 6. Included in the materials available in the Spanish language are periodicals, pamphlets, calendars, posters, film strips and motion pictures. The materials cover industrial, public and home safety and fire prevention.

7 REASONS For Clean Work clothes

1. APPEARANCE
2. HEALTH
3. SAFETY
4. PROFITS
5. COMFORT
6. EFFICIENCY
7. ECONOMY



COURTESY TOUSEY VARNISH CO. CHICAGO

Users of I.I.L. Uniform Rental service all over the country testify to these many advantages of cleanly uniformed workers. I.I.L. Members in every industrial area are experts in removing grime and grease and in supplying at regular intervals work clothes that fit perfectly and conform to specific work requirements for every type of job.



Write for Details and Name of Nearest Member.

INSTITUTE OF INDUSTRIAL LAUNDERERS

Headquarters: SCHLEY STREET, GARFIELD, NEW JERSEY

**WHAT THEY
DON'T KNOW
CAN HURT
THEM!**

Employees will be more safety conscious if you make it easy for them to see your safety posters and messages. Post them in a central location on a Diamond Bulletin Board. It's a perfect board for posting because it's illuminated for day and night reading and ventilated against fogging for clear visibility in any kind of weather.

Diamond Bulletin Boards are strong and durable, rust, weather and waterproof. Their sturdy all metal construction assures you years of good services, indoors and out.

Available in both single and double units. Write for further information and prices. Safety First Supply Company . . . 425 Magee Street, Pittsburgh 19, Pa.

All-Metal, Illuminated

**DIAMOND
BULLETIN
BOARDS**

The President's Medal

Awards made by the National Safety Council for resuscitation by the Prone Pressure Method

WAI MING KAM, apprentice cable splicer, Hawaiian Electric Co., Honolulu, T. H. — electric shock.

RICHARD C. FIFAREK, dredge deckhand, Milwaukee District, Corps of Engineers, U. S. Army—drowning.

GROVER L. WALDROP, electrician foreman, Tennessee Valley Authority, Florence, Ala.—electric shock.

LEON PAGE CRAWFORD, pipe-fitter helper, Humble Oil & Refining Co., Highlands, Texas — asphyxiation.

Calendar Contest Winners For November

First prize in the National Safety Council's Safety Calendar Contest for November has been awarded to Mrs. Jennie V. Snyder, Beachwood, New Jersey. The safety theme in the November contest was fire safety. Mrs. Snyder's "last line" was adjudged best of all those submitted, in completing the following limerick:

The Doakes had a nice bungalow;
They were carefree and happy, you know.
Too bad that the Doakes
Were so lax with their smokes
There's no IF about BUTTS if
they glow.

Second prize was awarded to Mrs. Clarence P. Hepler, Winston Salem, North Carolina. Her last line was: Inexcusable "home-icide", Joe!

Third prize was awarded to Mrs. Bonnie Maier, Cleveland Heights, Ohio, for the following line: There's a LAX-ury tax at this show!

Ten other awards were issued to:

Mrs. Charles F. Straight, Manchester, Conn.

Miss Florence Stellwagen, Washington, D. C.

Mrs. Russell Lyons, Hancock, N. Y.

Mrs. Arvid Hanson, Denver, Colo.

Miss Genevieve Taylor, Portland, Ore.

Mrs. Ethelyn Warner, Alma, Calif.

R. Cheyne-Stout, Orlando, Fla.

Grayson Davis, Palestine, Tex.

Mrs. H. R. Bierhorst, Jacksonville, Fla.

Mrs. Robert C. Blalock, Abbeville, Ala.

The December Calendar Contest relates to teen-age driving, with the theme "Teen-Age Can Be Frisky Without Being Risky!"

Proved in Safety Programs
by leading Industries . . .

you can

**CLEAN MORE
FASTER, AND AT
LOWER COST**

with

**HOFFMAN
HEAVY DUTY VACUUM
CLEANING SYSTEMS**

Plant cleaning takes less time and manpower — is done more thoroughly with Hoffman vacuum cleaning equipment. Higher suction — larger dust storage — bigger filtering area permit more cleaning (walls, overhead and machinery as well as floors) with less time out for disposal. The proven, modern method for eliminating hazardous dust conditions — with big savings that result. Portable units and stationary systems to fit your plant. Write now for a FREE Survey.



NEW AND OUTSTANDING HOFFCO-VAC #30 PORTABLE

This new 3 h.p. portable has features previously obtainable only in larger models. Large bag filtering area. 4.4 cu. ft. dust container, and other new advantages. Built for heavy-duty, continuous service. Write for Bulletin A-752.

**HOFFMAN ALSO BUILDS
MULTISTAGE CENTRIFUGAL
BLOWERS AND EXHAUSTERS**

U. S. HOFFMAN

MACHINERY CORPORATION
AIR APPLIANCE DIVISION

98 EAST 12TH ST., NEW YORK 3; N. Y.
CANADIAN PLANT: NEWMARKET, ONT.



Member Training Courses

Open to all Council members, the Basic and Advanced Safety Training Courses presented at NSC headquarters from November through June are designed to provide a solid foundation of safety knowledge.

The Basic Course is a valuable and practical refresher for experienced safety men and a good opportunity for the beginner in safety work to learn the fundamentals of accident prevention quickly and easily. To supplement the information presented by the experts who teach the course, each person who attends is given a kit of reference materials for follow-up study.

A few of the subjects covered in the Basic Course are these: organizing a safety program; analysis of accident records; machine guarding; foremen's safety responsibilities; fire prevention; industrial health.

The next Basic Course will run from February 13 to February 17. Enrollment is limited to eighteen so that those attending can have ample opportunity to participate in discussions. The tuition charge of \$50 includes the cost of the reference materials given to each registrant.

For those who have completed the Basic Course, an Advanced Course will be given in January. It includes instruction and practice in accident investigation and analysis, in psychology in safety, in the conference method, in public speaking, and so on.

For a full schedule of the 1949-1950 courses and detailed information on the subjects covered, write the Training Course Director at Council headquarters.

Data Sheet Revised

Data Sheet D-Chem. 2, "Caustic Soda (Sodium Hydroxide)," has recently been revised and is now in stock. Since this Data Sheet is not scheduled for publication in the NATIONAL SAFETY NEWS, safety directors, supervisors, and foremen can bring their sets of Data Sheets up-to-date by ordering copies of D-Chem. 2 direct from Council headquarters.

Member prices: 1 to 9 copies, 15 cents each; 10 to 99, 11 cents each; 100 to 999, 7 cents each; 1000 or more, 6 cents each.

"Fumigating Facts"

Safety Reprint Food No. 1, "Fumigating Facts," is a concise listing of precautions to be taken in the use of certain common fumigants. Typical insects that plague industry are illustrated, and the products affected by them are indicated.

This two-page publication is reprinted from the Factory Insurance Association's *Sentinel*. Prepared especially for the food industry, it will be useful wherever the problem of fumigation is encountered. Safety and health directors will find the information of value for hotels, restaurants, and company cafeterias, which handle and store food, and warehouses and stores which contain furs, clothing, upholstered furniture.

Member prices: 1 to 9 copies, 15 cents each; 10 to 99, 11 cents each; 100 to 999, 7 cents each; 1000 or more, 6 cents each.

Safety Talks

Foremen throughout industry will find the recently published volume of fifty-eight "Safety Talks for Construction and Maintenance Foremen" a valuable source of information on a wide variety of subjects.

Written in the language of the foreman, each talk takes no longer than five minutes to present. One

page in the volume tells the foreman how to use the talks and gives him tips on how to lead "tool box" or gang meetings.

The talks cover general safety subjects, such as fire prevention, housekeeping, and safe use of electricity, and specific construction operations, like clearing, excavation, and demolition.

"Wanted—Safe Workers"

How does a safe worker differ from an unsafe worker? What attitudes does he show and how does he act on the job? First of all, the opening pages of a brand-new Safetygraph point out, he does not depend on luck to prevent accidents.

Designed for use in the indoctrination of new employees or as a refresher for other workers, Safetygraph No. 15, entitled "Wanted—Safe Workers," then discusses the importance of profiting from experience—that is, of following the plant safety rules.

The dangers of chance-taking, horseplay and monkeying with unfamiliar equipment are colorfully illustrated. The meaning of the term *safe dress* and the need for using personal protective equipment as required are indicated.

The value of cooperation (for instance, in keeping the work area clean, in helping others on handling jobs) is pointed out. Such vital factors in the safety and health program as the suggestion system and the need for reporting minor injuries to first aid are also mentioned.

To build sound attitudes effectively, this 12-page Safetygraph (18 inches by 24 inches), like the others in the series, has been planned to invite audience participation.

Cartoons, drawings, and photographs highlight the main points, and a running commentary to assist the leader of the meeting at which the Safetygraph is used is printed on the backs of the pages.

Member prices: Safetygraph with easel, 1 to 9 copies, \$13.25 each; 10 to 99, \$12.50 each; 100 or more, \$12.00 each; Safetygraph only, 1 to 9 copies, \$10.00 each; 10 to 99, \$9.50 each; 100 or more, \$9.00 each.

SAFETY POSTERS

from
NATIONAL SAFETY COUNCIL

IMPORTANT

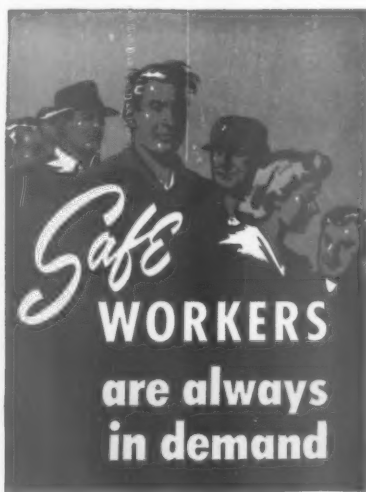
All posters displayed on these pages, except the jumbo poster, will be available through 1950, and may be secured as a part of N.S.C. membership service, or by purchase.

Posters numbered 8700 and up are new posters. Others are among the 744 posters shown in the 1950 Poster Directory.

Write to Membership Dept. of N.S.C. for further information.



NATIONAL SAFETY COUNCIL
8886-A 8½x11½



NATIONAL SAFETY COUNCIL
8360-A 8½x11½



NATIONAL SAFETY COUNCIL
8333-A 8½x11½



NATIONAL SAFETY COUNCIL
8489-A 8½x11½



NATIONAL SAFETY COUNCIL
6760-A 8½x11½



NATIONAL SAFETY COUNCIL
7928-A 8½x11½

Electrotypes or poster miniatures on this page are not available, nor can payroll inserts be supplied.

Posters below are printed in two or more colors
(Available only in sizes indicated)



NATIONAL SAFETY COUNCIL

8910-C

25x38



JUNIOR POSTER For FEBRUARY 1950

Jumbo posters 9' 11" by 11' 8" in size, designed for outdoor use, are issued monthly. They are available to members for \$42.50 annual subscription.



NATIONAL SAFETY COUNCIL

8883-B

17x23



NATIONAL SAFETY COUNCIL

8879-A

8½x11½



NATIONAL SAFETY COUNCIL

8816-A

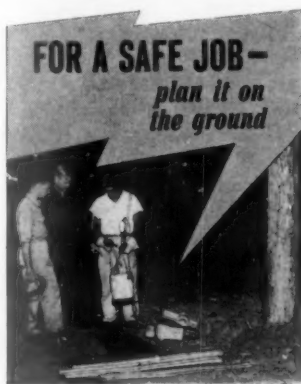
8½x11½



NATIONAL SAFETY COUNCIL

8786-A

8½x11½



NATIONAL SAFETY COUNCIL

8887-A

8½x11½



NATIONAL SAFETY COUNCIL

7807-B

17x23

See box on page 66 for information about these and other National Safety Council posters.

Posters below are printed in two or more colors
(Available only in sizes indicated)

Spot These Needless FIRE HAZARDS



NATIONAL SAFETY COUNCIL
W.C. 34 17x23



NATIONAL SAFETY COUNCIL
8830-B 17x23



NATIONAL SAFETY COUNCIL
8888-A 8½x11½



NATIONAL SAFETY COUNCIL
8276-A 8½x11½



NATIONAL SAFETY COUNCIL
8794-A 8½x11½



NATIONAL SAFETY COUNCIL
8416-B 17x23



NATIONAL SAFETY COUNCIL
7171-A 8½x11½



NATIONAL SAFETY COUNCIL
7355-B 17x23



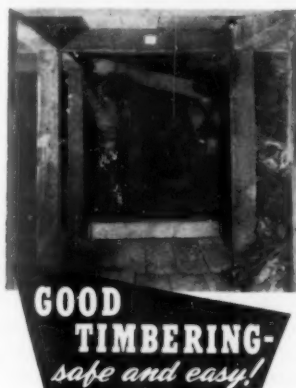
NATIONAL SAFETY COUNCIL
7448-A 8½x11½

See box on page 66 for information about these and other National Safety Council posters.

Posters below are printed in two or more colors
(Available only in sizes indicated)



NATIONAL SAFETY COUNCIL
8157-B 17x23



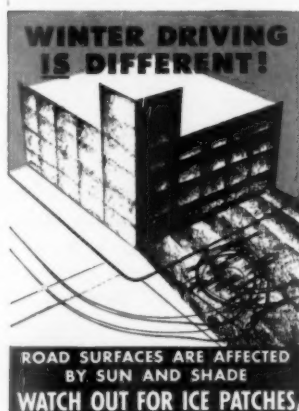
NATIONAL SAFETY COUNCIL
8874-A 8½x11½



NATIONAL SAFETY COUNCIL
7460-A 8½x11½



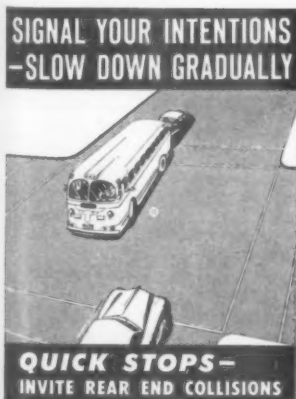
NATIONAL SAFETY COUNCIL
5988-A 8½x11½



NATIONAL SAFETY COUNCIL
V-8639-A 8½x11½



NATIONAL SAFETY COUNCIL
V-8869-B 17x23



NATIONAL SAFETY COUNCIL
V-8901-B 17x23



NATIONAL SAFETY COUNCIL
V-8899-B 17x23



NATIONAL SAFETY COUNCIL
V-8900-B 17x23

See box on page 66 for information about these and other National Safety Council posters.

SAFEGUARD MEN and TOOLS *with* BUHRKE GUARDS



No. 1507
Pole
Pruning
Saw

No. 1501
Hand
Saw

No. 1509
Hatchet

No. 1515
2 inch
Chisel

FOR ALL TYPES OF EDGED HAND TOOLS

Specialists for 50 years
WRITE FOR DETAILED INFORMATION

R. H. BUHRKE CO.
4701 W. Grand Ave., Chicago 39, Ill.

Safety in Sweden

(From page 39)

ened and how the institution of safety representatives could, at least to some degree, be made compulsory.

The recommendations of the committee may to a certain extent be characterized as a pursuance of the same general principles for safety work that are contained in the labor safety law and for whose practical application the State Trade Inspection Board has done important pioneer work. The unanimous opinion of the committee indicates, however, that voluntary agreements offer definite advantages as they facilitate the practical application of desirable regulations in this field and, particularly, because they are apt to make the parties concerned jointly interested in the safety problem and to inspire their own initiative and sense of responsibility.

As one of its basic findings, the committee stresses the necessity of bringing about or strengthening the cooperation between employers and workers in the field. Through such cooperation, safety work could gain more general recognition and, thus, lead to a substantially more favorable result than has been achieved thus far.

By the new regulations, the institution of safety representatives which existed already, but had not been employed to the extent desired, will on the whole become obligatory; and a minimum of safety representatives is prescribed relative to the number of workers employed by each enterprise. Special rules exist for the purpose of assuring the safety representatives their right to perform their duties without interference by the employer or by anyone else (the chicanery clause).

Against this there stand certain demands on the qualifications of the safety representatives. Their rights and duties are set down with regard to the manner by which criticism against safety and health devices may be advanced to foremen and employers, with respect to their presence at inspections

and investigations, regarding compensation for wages lost, etc. Finally, the regulations contain prescriptions concerning safety committees which have been made obligatory to enterprises of a certain size, and certain rules have been prescribed for their composition and duties.

These safety regulations have nowadays been adopted by industrial groups embracing practically the entire joint field of the labor market parties, and, in addition, by organizations outside the Employers' Federation, notably the various agricultural organizations and those involving workers in state and municipal employ. Moreover, the country's handicraft organizations have lately devoted considerable interest to the safety problem, both in the central organization in Stockholm and in the provincial organizations representing handicraft labor.

The acceptance of these regulations means that big campaigning organizations, with all their subsidiary organs, have included in their programs matters of safety

SAVE MONEY Kill Odors, Clean with one material

With one and the same wash-room sanitizing agent, Oakite Di-Sanite, you can now do these two jobs simultaneously:

- (1) Destroy offensive odors in toilets, locker rooms, refuse areas;
- (2) Remove soil from tiled walls, floors, and other surfaces.

Double-duty Oakite Di-Sanite saves time, effort. Gives you more for your maintenance cleaning dollar. Free demonstration, further details on request. Write address below today.

OAKITE PRODUCTS, INC.
140 Thomas Street, NEW YORK 6, N. Y.
Technical Service Representatives Located in Principal Cities of United States and Canada

OAKITE

Specialized Industrial Cleaning
MATERIALS • METHODS • SERVICE

and sound conditions at places of work with which they are concerned. It is obvious that these widespread organizations, having associated themselves with the performance of this duty, have every possibility of organizing a thorough and effective safety system in place of the more or less sporadic efforts that characterized the work in the past. The organizations have different means at hand for carrying through coercive measures which would easily be applied by joint action, but it should not be necessary to resort to these measures. The motto is: voluntary action, cooperation and good will.

However, it was found necessary to establish a central organization, a contacting body, with the function of keeping in touch with new developments, especially with a view of ensuring that the regulations are not merely accepted but are also put into effect, that they shall thus not become a dead letter but that a living spirit shall be infused into them. This organ—the Labor Protection Board—consists of two ordinary members and two deputies for them from each central organization and two representatives from the foremen's central organization.

Since 1945, the Labor Protection Board has been conducting its activities through a bureau of its own, the costs of which are defrayed by the Employers' Federation and the Confederation of Trade Unions, each paying half.

The first task of the Board was to see to it that the rules for the organization of the local safety work that had been laid down jointly by the two federations were adopted by their respective branch organizations. This served not only as a control measure but also as an appeal for the prosecution of the safety work in all its details. The great increase in number of safety representatives and of safety committees attests the success of this part of the Board's activities.

Another feature of the activities of the Board consists of safety propaganda. The labor safety exhibition at Gefle in 1946 and the national safety propaganda started



Protect your safety record with Scott Demand Inhalator—the efficient, low-cost way to provide emergency administration of oxygen. Portable and easy to operate, the Scott Demand Inhalator can be used by inexperienced personnel, at any location. No adjustments of any kind—no special training needed. Supplies oxygen “as demanded” by patient, or by constant flow. Economical in use—initial cost much less than other equipment of comparable scope.

Scott DEMAND Oxygen Inhalator is made by the manufacturers of AIR-PAK Safety Breathing Equipment (using air, not oxygen)—the safe, low-cost way to deal with breathing hazards in toxic areas.



Write for full information on Scott Demand Inhalator or Scott Air-Pak to:

FOR SAFETY—FOR SERVICE

**MEDICAL DIVISION
SCOTT AVIATION CORP.**

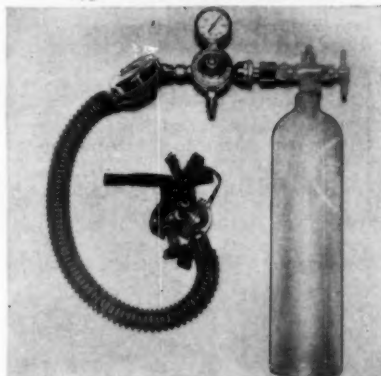
211 ERIE STREET LANCASTER, N. Y.

IN CANADA: SAFETY SUPPLY CO., TORONTO, ONT.

- SAVES LIVES
- PROTECTS HEALTH OF PERSONNEL at Low Cost!



Type "B" DEMAND Inhalator



Type "A" DEMAND Inhalator

EVER-KLEAR COVER LENS

TWENTY YEARS OF PROVEN SERVICE

Clear Vision

Comfortable Vision

Is what EVER-KLEAR Cover Lens gives you. You can't do your best welding unless your vision is clear and comfortable. Thousands have found this to be true after using EVER-KLEAR Cover Lens. They give a keen sharp view of the weld always. They do not pit.

Employ Ever-Klear Lens for better welding

Size 2x4 1/8" for arc-welding shields \$2.40 per dozen
Size 4 1/2" to 5 1/2" M.M., for goggles35 per pair

Contact your nearest Jobber. If they cannot supply you, send order direct, giving Jobber's name.

405 PENN AVENUE

F. R. FAULK, DISTRIBUTOR

PITTSBURGH 22, PA.

DIRTY FLOORS A MAJOR CAUSE OF FALLS IN INDUSTRY!

Findings of National Bureau of Standards

"The National Bureau of Standards found in a series of exhaustive tests that floors became considerably more slippery when dirty...in most cases, twice as slippery."

Standards

HILLYARD TREATED FLOORS

Won't Let You Down! They're CLEAN-SAFE!

That's why Industry depends on Hillyard Care. Hillyard Care keeps floors dirt-free and safe... reduces accidents, increases efficiency, protects your investment in floors... keeps maintenance costs at a minimum.

ANTI-SLIP SUPER SHINE-ALL CLEANS UP ON FLOOR ACCIDENTS

Hillyard's wonder cleaner goes to work instantly—cleans dirt and grease from floors easily. Works on all types of floors... not a soap, but a neutral liquid chemical cleaner that leaves no slippery film... requires no rinsing. Just mop it on, squeegee or damp mop it off. Approved by Underwriters' Laboratories.

NON-INFLAMMABLE KURL-OFF

Removes old paint and varnish easily, safely, from floors, woodwork, machinery with no fire hazard.

SLIP-RESISTANT HILCO-LUSTRE

This Floor Renewer seals out dirt, seals in bright clean surface. Resists heavy traffic-wear. Won't water spot. Approved by Underwriters' Laboratories as "Anti-Slip."

Ask your nearest "Maintainer" about these HILLYARD PRODUCTS today... or write to

HANDLE WITH

HILLYARD

CARE!

St. Joseph, Missouri, U. S. A.



early in 1948, are the most important measures taken. However, we should not forget the lectures and talks made by the secretary and other members of the Board at many different places.

Because of the control work and the propaganda carried out by the Board hitherto, the latter now has in the safety representatives and committees a sound basis on which to proceed with the good work. Furthermore, the propaganda has undoubtedly led to a greater public response to the Board's measures.

It seems evident that the training of safety representatives for their responsibility under the Labor Protection Act should be supervised by the Labor Protection Board which should lay down the general principles for training and arrange for courses to be started throughout the country in the most effective way.

Moreover, the Labor Protection Board should keep itself carefully posted on developments in this sphere abroad, not only in Scandinavia, but also in other countries, especially in the United States. In this way, the Labor Protection Board will prevent its active work from becoming stereotyped and will always be able to keep up the interest of both employers and workers.

Has this cooperation led to any demonstrably positive result?

Yes, at those work places where an organized safety work has been established by the joint efforts of the parties on the labor market, it has been possible to reduce the accident rate to such an extent that the results must be regarded as a product of cooperation.

Nobody will dispute that the organization of labor safety is a highly suitable field for cooperation and mutual understanding. Being free from the risk of political complications, intensive efforts in this sphere benefit both parties, production and the community. But even in other regions cooperation between the labor market parties has been established. Thus, in 1944, an Occupational Training Council was founded to give advice on professional education. The Council is constructed in the

Safety
made **INTERESTING**
TO YOUR WORKERS WHERE
ACCIDENTS OCCUR

EVERY EMPLOYEE A
SAFETY MAN

Safety News
YOUR
PUBLISHED BY THE COUNCIL OF YOUR SAFETY
Your Firm Name Printed Here

PEP UP YOUR SAFETY EFFORTS WITH SOMETHING DIFFERENT

Here is Industrial Safety at a Big Saving in Time and Money. All the causes of accidents directed to your employees monthly. Just the way they like it with Color, Humor and interesting Pictures that impress. How else can workers be taught to know, avoid and report Unsafe Acts & Unsafe Conditions, that cause your accidents, for so little money.

"YOUR SAFETY NEWS" MAKES
ANY SAFETY PROGRAM BETTER

Write for samples and prices

FRANK O. SHOEMAKER, Publisher
4911 SOUTH CHICAGO AVE. CHICAGO 37, ILL.

same way as the Labor Protection Board and has its own office for which the two chief organizations share the costs. There is also collaboration with respect to working time studies and recently a voluntary agreement was made on industrial democracy.

In order that the freedom of the labor market may be maintained, it must be watched and cared for. This end cannot be achieved by one-sided action from any part of the labor market organizations. Both parties must feel and acknowledge their mutual responsibilities. Cooperation is—as stated before—an art that has to be learned. If people succeed in cooperating on one point, they are ready to believe that there is every chance of broadening the field of cooperation.

The Safety Library

(From page 40)

from the Bureau, Publications Distribution Section, 4800 Forbes St., Pittsburgh 13, Pa. Free. (IC 7489)

Operations and Safety at the Retsof Rock Salt Mines. Published by U. S. Bureau of Mines. 1949. 12 p. Available from the Bureau, Publications Distribution Section, 4800 Forbes St., Pittsburgh 13, Pa. Free. (IC 7522)

Review of Literature on Conditioning Air for Advancement of Health and Safety in Mines. Published by U. S. Bureau of Mines. 1949. 57 p. Available from the Bureau, Publications Distribution Section, 4800 Forbes St., Pittsburgh 13, Pa. Free. (IC 7528)

Routine Ventilation Surveying in South Wales Anthracite Mines. Published by U. S. Bureau of Mines. 1949. 11 p. Available from the Bureau, Publications Distribution Section, 4800 Forbes St., Pittsburgh 13, Pa. Free. (IC 7530)

Two Devices to Prevent Electric Arcs with Airdox Operations in Coal Mines. Published by U. S. Bureau of Mines. 1949. 5 p. Available from the Bureau, Publications Distribution Section, 4800 Forbes St., Pittsburgh 13, Pa. Free. (IC 7515)

Tuffy SLINGS

TRADE MARK

Entirely Unlike Any Other



Scores of wires, stranded into 9 parts, then machine woven into an interlaced wire fabric—that is the unique patented construction which gives Tuffy extraordinary flexibility and stamina.

Super TOUGH—On every kind of load, under all kinds of pulls and with every type of hitch, Tuffy Slings have proved their superiority and universal adaptability.

Super-FLEXIBLE—Tie Tuffy Slings into knots, kink them, flatten the eyes. Observe how many more times you can straighten Tuffy Slings out without material damage. Note too, that cutting any one of the 9 parts will not result in stranding the sling.

Tested Strength Twice Safe Working Load Limit



Each Tuffy sling is proof-tested to twice the safe working load indicated on its metal tag. Tuffy's interlaced construction makes possible eye splices averaging 95% of fabric strength.

9 Types-Factory Fitted or Unspliced on the Reel

Try any one of the 9 factory packaged types—for choker, basket or bridle hitches. Prove to your own satisfaction their money saving worth to you. Or, if you're rigged for splicing—Tuffy interlaced wire sling fabric is available on the reel.

union Wire Rope corporation

2224 Manchester Ave., K. C., Mo.
Send Tuffy Sling details.

FIRM NAME _____
ADDRESS _____
CITY _____ STATE _____

SINCE 1883
TANNERS OF
QUALITY LEATHERS

LICHTMAN
J.L.&S.
LEATHERS
NEWARK, N. J.

Reg. U. S. Pat. Office
J. LICHTMAN & SONS
NEWARK 5, N. J.

**For Best Results
INSIST ON
LICHTMAN
Heat Resistant
LEATHER
For Protective Clothing**

MAGAZINE ARTICLES

Accident Statistics

Work Injuries in the United States. 1948. (In Monthly Labor Review. Oct. 1949, p. 385)

Atmospheric Pollution

Air Contamination Standards by Frank A. Patty. (In Standards World, Autumn 1949, p. 57)

Construction

Safe Construction Procedures. (In Construction Methods and Equipment. Nov. 1949, p. 74)

Health

The Dollar and Sense of Industrial Nursing. By Harold L. Althouse. (In American Journal of Nursing, Nov. 1949, p. 721)

Make Your Plant a Safe Pleasant Place to Work. By Alonzo Flack. (In Factory Management and Maintenance, Nov. 1949, p. 68)

Housekeeping

Weekly Rating Insures a Clear Job Shop. By E. W. Johnston (In Factory Management and Maintenance, Nov. 1949, p. 125)

Labor

Labor-Management Cooperation in Accident Prevention in the United States. By Ernest Dale (In Industrial Safety Survey, April-June 1949, p. 41)

Marine Industry

S. S. Noronic Fire Worst Inland Marine Disaster in Century. (In Fire Engineering, Oct. 1949, p. 778)

Mines

Diesel Proves Safe in Coal Mines. By J. A. Bursset. (In Mining Engineering, Nov. 1949, p. 40)

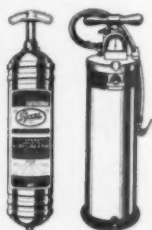
Mine Roof, Treated Timber and Simple Arithmetic. By Joseph M. Bray. (In Mechanization, Oct. 1949, p. 86)

A Safety Program Can Also Curb Costs. By W. E. Jones (In Engineering and Mining Journal, Nov. 1949, p. 86)

Safety with Continuous Mining. By R. T. Artiz. (In Coal Age, Nov. 1949, p. 94)

Static Electricity

Static. What Causes It and What You Can Do About It. By Robert



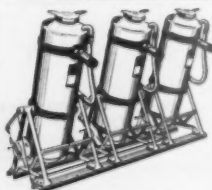
VAPORIZING LIQUID

The all-purpose extinguisher effective on almost every kind of fire. Safe on electrical fires, too. 1 qt. and 1½ qt. pump types; 2 qt. and 1 gal. pressure-operated types.



CHEMICAL FOAM

2½ gal. size produces about 22 gals. of fast-acting foam. Ideal for flammable liquid and ordinary combustible hazards. Also in 10 gal. and 40 gal. (above) wheeled units.



MANUAL AND AUTOMATIC SYSTEMS

Complete fire-fighting systems, using chemical foam or air foam. For storage tanks, dip tanks, loading racks, etc.

Get the RIGHT Pyrenes for the RIGHT places

Buy them the reliable, prompt, economical, easy way—from your local PYRENE jobber.

PYRENE* builds fire extinguishers for every kind of hazard. You can buy them all from your local jobber. You get immediate delivery, you pay no freight charges, and you deal with an established business right in your own community.

Every PYRENE is precision-made for sure protection. PYRENE is a name you can trust, a product you can always rely on. Write for address of your local PYRENE jobber.

*T. M. Reg. U. S. Pat. Off.



Also Air Foam, Cartridge-Operated, Soda-Acid, Pump Tank, and Other Extinguishers



PYRENE MANUFACTURING COMPANY

583 Belmont Avenue

Newark 8, N.J.

Affiliated with C-O-Two Fire Equipment Co.

WHEN HE FORGETS... THE GUARD REMEMBERS!



Here's protection against those forgetful moments when tragedy lashes out to claim its toll.

The Junkin Safety Guard is effective . . . dependable. It can't "forget" because it's built in . . . actually becomes a part of the press itself.

That's how Junkin is helping thousands of satisfied users set up better safety records . . . higher production records.

Write For This New Bulletin

If you would like the facts about Junkin Safety Guards, write us. There's no obligation.

JUNKIN SAFETY APPLIANCE CO., INC.
930 WEST HILL STREET,
LOUISVILLE, KENTUCKY



JUNKIN SAFETY GUARD

F. Reed. (In Modern Lithography. Oct. 1949, p. 62)

Training

Training for Safety. By J. J. Plasky. (In Coal Age, Nov. 1949, p. 83)

Workmen's Compensation

Sickness Disability Insurance Laws in Relation to Occupational Medicine. By Dr. Leonard J. Goldwater. (In Industrial Medicine. Nov. 1949, p. 473)

N. C. Industrial Injuries Continue Decline

Work-injury rates in North Carolina manufacturing industries continued to decline from January through August, 1949, according to reports received by the North Carolina Industrial Commission. For this period in 1948 there were 57,216 injuries reported; for the corresponding period during 1949 51,429 injuries were reported.

H. S. Baucom, Director of Safety for the Commission, pointed out, however, the toll of human life lost was higher—73 died as a result of injuries from January through August during 1948, while 81 died during the corresponding period in 1949.

Reduction in injury-frequency rates was reported in the textile, furniture, hosiery and dairy industries. This report covers over one thousand plants affecting a total of 220,530 workers working some 258,617,818 manhours.

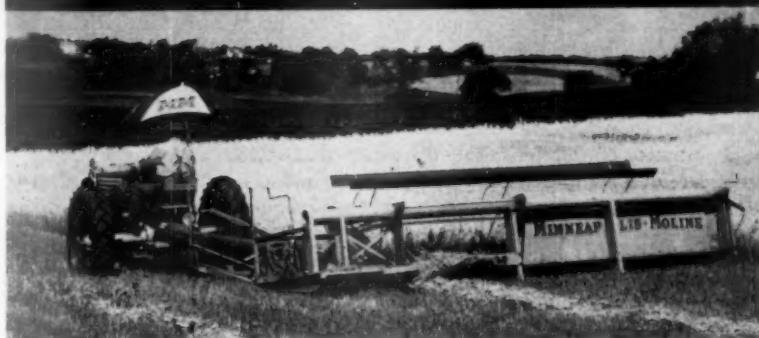
Allatoona Dam

(From page 51)

gallon steel drums mounted on legs and provided with handles, thus permitting them to be moved freely about the job. The salamanders were fired with coal and provided ample heat even in the coldest weather. Change houses were conveniently located near all work areas. These houses contained lockers, table and heaters. They provided a warm, dry place for workmen to eat their lunch, and to await shift changes.

Job telephones were located in all work areas and in supervisors' field shacks. These phones were connected with the office, first aid

THERE ARE 60 BRADLEYS

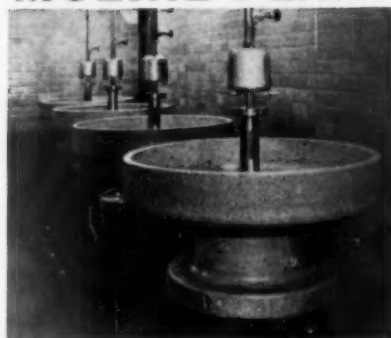


IN THE GROWING MINNEAPOLIS-MOLINE PLANT

55 Washfountains 5 Multi-Stall Showers

• Growing manufacturers like Minneapolis-Moline appreciate the fact that clean, sanitary and adequate washroom facilities are prime factors in management-employee relations.

Each 54" Bradley Washfountain provides facilities for up to 10 persons simultaneously. Piping is reduced 80%. One sprayhead provides clean running water and



Four of the 55 Bradleys in the Minneapolis-Moline plant.

eliminates all faucets. Maintenance is reduced as well as water consumption.

Our illustrated Booklet 4701 will help you in laying out improved washroom. Write for a copy. BRADLEY WASHFOUNTAIN CO., 2237 W. Michigan Street, Milwaukee 1, Wisconsin.



One of the Multi-Stall Showers and a Washfountain are shown in this portion of one of the washrooms.



BRADLEY
washfountains
AND *multi-stall showers*



AVOID THE HAZARDS

Prevent Serious Injuries

caused by dangerous hand, foot and bar methods of closing hopper car doors with latch type locks.

Write today for free folder on the

PRESCOTT SAFETY TOOL

THE TRUMBULL MFG. CO.
WARREN, OHIO

station, compressor house, head and tail towers of the cableway, electrical shop and the equipment repair shop. These phones provided speedy transmission of orders, and expedited first aid and ambulance service in the event of emergency.

Safety on this job resulted from careful planning from the initial to the final stages of the job, and the full cooperation of all supervisors.

The Allatoona Dam project was

constructed under the supervision of the Mobile District, Corps of Engineers, U. S. Army, Colonel W. K. Wilson, Jr., District Engineer. National Constructors is a corporation consisting of three construction contractors, the Arundel Corp., Baltimore, Md., L. E. Dixon Company, Los Angeles, Calif., and Hardaway Contracting Company, Columbus, Ga. Project managers for the contractor were W. N. "Bill" Evans and K. L. "Maje" Parker. Charles A. Jack-

son was the Army Resident Engineer, and William H. Duncan and William I. Sullivan were project safety engineers.

THE HONOR ROLL

Records of operation exceeding 500,000 man-hours, or one year, if exposure exceeds 250,000 man-hours, without a disabling (lost-time) injury are invited.

Aluminum Co. of America

Lafayette, Ind., Works—July 7 to October 21, 1949; 1583 employees; 952,042 man-hours.

American Airlines

Materials Department, Tulsa, Okla.—May 31, 1948, to October 27, 1949; 901,245 man hours.

Consolidated Paper Corp., Ltd.

Belgo Mill, Shawinigan Falls, Quebec—May 3 to November 14, 1949; 1,000,314 man-hours; continuing.

Continental Can Co., Inc.

Cincinnati Can Plant No. 15—



The HIGH PRECISION STANDARDS of



call for EQUALLY HIGH VISUAL STANDARDS

Writes Dr. Carl Maggio: "With our Keystone OVS service we have conducted over 20,000 employee screening tests since 1946, with excellent results in all four requisites of our visual program:

"(1) Establishment of visual standards for each occupation. (2) Screening new applicants and classifying according to visual skills. (3) Visual classification of employees for transfer and promotion. (4) Recommend-

ation for eye examination where needed.

"There is little reason for condoning visual defects in industry — at least 90% have proven correctable with proper care."

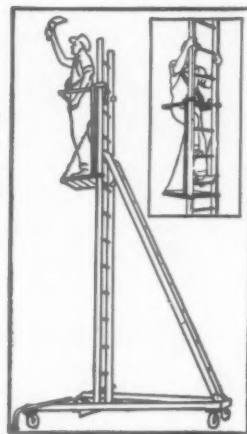


Periodic Vision Testing Increases Production . . . Reduces Spoilage . . . Lowers Accident Rates . . . Improves Employee Morale by reducing fatigue, irritability, absenteeism.

IN YOUR OWN PLANT, we will run sampling tests and make a visual analysis of job operations, with no obligation whatever. **KEYSTONE VIEW CO.**, Meadville, Pa., originators of binocular vision testing in industry.

2500 Industrial Companies Use
KEYSTONE
Occupational Visual Tests

Safety
Elevator
Scaffold
and
Ladder
Truck



Built for easy handling, fast erection, stationary or mobile use. It provides high working range and convenient standing position close to the work. The high guard rail permits workman to use both hands and thus work safely and efficiently without strain.

The scaffold can be erected or folded flat in two minutes. The elevator unit hooks on any of the ladder rungs and is supported from the workman's shoulder strap when moving up and down.

Made in four sizes, 14 to 24 feet. Write today for catalog and prices.

R.W. FIEROH CO., INC.

3401 South Hoyne Avenue
Chicago 8, Illinois

September 10, 1948, through September 10, 1949; 298,936 man-hours.

Oil City, Pa., Can Plant No. 65—October 1, 1948, through October 1, 1949; 272,000 man-hours.

McDonald Machine Shop No. 33, Chicago—March 1 through September 30, 1949; 519,936 man-hours.

Research Dept. No. 85, Chicago—January 1, 1947, through September 30, 1949; 1,021,219 man-hours.

Emergency Export Corp.

Nebraska Ordnance Plant, Mead, Neb.—October 30, 1948, to December 1, 1949; 256,309 man-hours; continuing.

Ford Motor Co.

Long Beach, Calif.—March 1 through October 31, 1949; 1935 employees; 1,751,650 man-hours.

H. J. Heinz Co.

Pittsburgh, Pa., Factory—June 21 to October 6, 1949; 2464 employees; 1,316,833 man-hours.

Imperial Glass Corp.

Bellaire, Ohio—May 17 to De-

cember 4, 1949; 600 employees; 562,317 man-hours; continuing.

Mohawk Carpet Mills, Inc.

Wilton Mill, Amsterdam, N. Y.—1,162,600 man-hours as of November 29.

Remington Rand, Inc.

Electric Shaver Div., Bridgeport, Conn.—July 1, 1948, to September 28, 1949; 687 employees; 1,496,378 man-hours.

Trinidad Leaseholds Limited

Pointe-a-Pierre, Trinidad, B.W.I.

(Refining operations).—All records continuing, unless noted:

Main Stores Dept., July 1, 1946, to October 31, 1949; 1,031,543 man-hours.

Electrical Dept., March 19, 1948, to October 31, 1949; 724,735 man-hours.

Police Dept., June 20, 1946, to October 31, 1949; 859,469 man-hours.

Trunk Pipe Line Dept., January



Feralun Safety Treads installed in 1923, in office of RCA Victor Division, Camden, N. J. (Courtesy Public Relations Department, RCA Victor.)



FERALUN SAFETY TREADS

"INSTALLED IN 1923... STILL GIVING SATISFACTORY SERVICE TODAY"

They planned well for safety and for durability—those who were responsible for these Feralun* safety treads—installed when this RCA Victor building was erected in 1923. A quarter century of resistance to wear under the many thousands of feet that have gone up and down them since Calvin Coolidge first entered the White House! A quarter century of underfoot safety, too, on Feralun's non-slip surface! And, as the photograph shows, these same treads can still be counted on for many more years of maintenance-free service—and safety.

Examples like this show why architects, engineers and builders insist on "Feralun" treads, nosings and plates. Made of cast iron with wear-resistant abrasive particles embedded in walking surfaces, "Feralun" provides a sure-footed "grip" that keeps feet from slipping—and wears and wears. The coupon below will bring you full information on "Feralun." Send it today.

*Also available in Bronze—(Bronzalun),
Aluminum—(Alumalun), and Nickel Bronze—(Nicalun).®

AMERICAN ABRASIVE METALS CO.

IRVINGTON 11, N. J.

AMERICAN ABRASIVE
METALS CO.
468 COIT STREET
IRVINGTON 11, N. J.

Gentlemen: Please send me full information on Feralun. (NSN—I-50)

NAME TITLE
COMPANY
ADDRESS
CITY STATE

Put That Ladder Down!



Eliminate the hazards of Falls, Cuts and Shocks with

Chadsey Safety LAMP CHANGER

Replace Bulbs Easily

Rubber changer head holds lamp firmly "Like The Grip of Your Hand." Hardwood sectional poles, with brass ferrules and spring-button lock, in 4 or 6 foot lengths, can be interlocked to reach hard-to-get bulbs up to 30 feet!

Safe up to 29,000 volts!

Remove Broken Lamp Bases

By reversing changer head, the tapered and fits snugly inside broken lamp base, a twist of the pole removes it. Changer heads available in following sizes: Medium (std) base lamps; 6-15W; 25-100W; 150W; 200-300W. Mogul base lamps, 300W; 500W; 750-1500W. Also for PAR 38 and R-40 spot and flood lamps.

Adjustable adapter available for bulbs mounted at an angle.

Fluorescent Lamp Changer Heads

Now available for T12, T17 lamps and starters.

Write for folder and prices



Chadsey Corporation

P. O. BOX 1858 - HARTFORD 1, CONN.

POST SAFETY NEWS ON THE JOB where it's needed most



SAFETY RECORD							
THIS WEEK	M	T	W	T	F	S	S
LOST TIME ACCIDENTS	0	1	0	0	0		
SERIOUS DOCTOR CASES	0	1	0	1	0		
LAST WEEK							
SERIOUS DOCTOR CASES	1						
LAST WEEK							
DAYS SINCE LAST LOST TIME ACCIDENT	4						
TIME ACCIDENT	3						
WATCH YOUR FINGERS. WE HAD 14 FIRST AIDS ON FINGERS LAST WEEK.							



1. EASY TO READ
2. EASY TO CHANGE
3. ALWAYS UP TO DATE
4. HEADLINE "TYPE" FACES

"The perfect industrial bulletin board"
Letters—both white and red—are headline style—bold, clear and sharp. Die cut and double flanged, they line up true for rapid spacing. Made from special plastic formula, letters can't chip, curl or corrode. AS EASY TO CHANGE THE THOUSANDTH TIME AS WHEN FIRST USED.

These boards are eagerly read. Quick-change feature makes these boards as live as a newspaper. Use changeable letters also to report contests, drives, social doings, front office announcements. TAKE THE BUSINESS TO THE WORKER.

Designed for hard usage

Sturdy walnut finished frames and wood backgrounds are WATER-PROOFED. Slotted, jet black felt facing grips letters snug. 600 letters, figures—red and white—IN DISPLAY SIZES supplied with each board. Standard size 26" square. Many other stock sizes. QUALITY AT LOW PRICE.

Available with or without glass door, lock and key

A.C. DAVENPORT & SON INC.
311 N. DESPLAINES ST.
CHICAGO 6, ILLINOIS

SEND FOR CIRCULAR

18, 1946, to October 31, 1949; 783,793 man-hours.

Western Electric Co.

Lincoln, Neb., Shops—April 21, 1948, to October 31, 1949; 3,517,465 man-hours; continuing.

Westinghouse Electric Corp.

Small Motor Div., Lima, Ohio, Works — 2250 employees; 136 days; 1,635,311 man-hours as of November 15, 1949; continuing.

Misuse of Green Cross Brings Fraud Conviction

Unauthorized use of the National Safety Council's name and emblem brought conviction and a \$100 fine plus costs in Evanston (Ill.) Municipal Court to Arthur G. Porter on December 9. Judge Harry Porter passed the sentence on a charge of obtaining money under false pretenses.

The defendant attempted to collect from merchants \$10 to \$25 each to have their names imprinted on safety signs to be posted at filling stations, in telephone booths and other public places. The signs bore the name of the National Safety Council and the Council's Green Cross for Safety emblem. The Council's name and emblem also appeared on the receipts given for money collected.

Sidney J. Williams, assistant to the president, the National Safety Council, testified during the trial that although the Council's Chapters conduct campaigns for contributive funds to carry out safety programs, use of the Council's emblem or name in unauthorized campaigns is strictly prohibited. The Green Cross emblem is the Council's trade mark, protected by registration at the U. S. Patent Office. Porter admitted that he was not a member of the National Safety Council nor its representative.

The following is a statement recently issued by the Council:

"The United States Patent Office has granted to the National Safety Council, under date of May 24, 1949, an official registration of the Green Cross for Safety symbol as a trade-mark for prints and publications.

"The National Safety Council regularly uses this symbol on its publications, films, letterheads, and merchandise. The Council also permits others to use the

Penetred
SAFETY
SOLES

ACTUAL SIZE OF RIBS

\$2.00 POST PAID
INCLUDING CEMENT

16 ROWS OF WIRE Claws
IMBEDDED IN RUBBER
PROVIDE SURE FOOTING ON ANY SURFACE

You'll have SURE FOOTING the minute you put on the soles and your shoes will be dry because PENETRED Safety Soles are made of High Class Rubber that you securely cement to your work shoes, boots, and rubbers... they grip even better as they wear. Sold on a Money Back Guarantee.

State size when ordering.
Send check or money order.
FREE SAMPLE UPON REQUEST

PENETRED CORP.
BLOCK C
Marshfield, Wis.

Dunking Stations!

ANSWER YOUR PLANT
SMOKING PROBLEMS



Unit No. 2 for mounting on walls, columns and posts.

Unit No. 1, (not illustrated) same as unit No. 2 but with upright and base for use on floors, aisles, etc.

Send for illustrated folder which gives complete details.

Standard Industrial Products Co.

1710 Main St.

Peoria, Illinois

POPULAR WITH THE MAN WHO WEARS IT



Here is our No. 244, the most popular welding helmet in the entire Sellstrom line. It is preferred because it is compact, fits snugly, has full rounded front with side flares.

Chin shield curves inward to protect chin and head against light exposure. Made of tough fibre, is impact and shockproof, has adjustable non-absorbent headband. Sellstrom rivetless lens holder.

If this helmet is not being used in your plant, order a single helmet for inspection and test purposes.

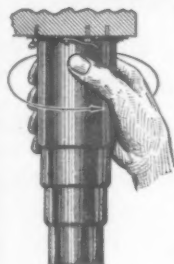
sellstrom

MANUFACTURING CO.

Offering largest variety of Eye and Face
Safeguard made in a single factory.

622 N. Aberdeen Street Chicago 22, Ill.

Guide Pin Covers



PROTECT OPERATOR AND GUIDE PINS

Effectively guard against injury to operator, die and press on operations where bushings leave the guide pins. Protect pins and bushings from chips and dirt when entire pin and bushing are covered. Inexpensive, easy to attach.

Felt Oiler Ring in top units provides **POSITIVE** lubrication.



WRITE TODAY FOR DESCRIPTIVE FOLDER AND PRICE LIST

Name _____

Address _____

Title _____

Wiesman Manufacturing Co.
31 South St. Clair Street • Dayton 2, Ohio

symbol to indicate that the user supports accident prevention work generally and/or specific accident prevention programs of the National Safety Council.

"However, the National Safety Council does not permit any individual or organization to use the *Green Cross for Safety* symbol in any way which would indicate or imply that the National Safety Council has endorsed or approved a commercial product or enterprise, either directly or indirectly.

"Neither does the National Safety Council permit any individual or organization to use the *Green Cross for Safety* symbol in any way to indicate, either directly or indirectly, that said individual or organization is employed by, or represents, the National Safety Council, unless such relationship has been expressly stated in writing by the Council.

"As owner of the *Green Cross for Safety* symbol the National Safety Council reserves the right to decide in all cases whether or not the use of the symbol by any individual or organization is permissible."

Looking Back and Ahead

(From page 21)

prised seven committees and turned in reports covering subjects, in addition to my own committee, as Engineering, Accident Records—Analysis and Uses, Laws and Regulations, Education, Programs and Services, and Research. The last committee, incidentally, was headed by Vice President Bill Yant, of the American Society of Safety Engineers. R. H. Ferguson, president of the ASSE, rendered fine service with wise counsel as a member of my committee.

The programs prepared by the men and women who participated in this conference, in my opinion, will set up signposts for our guidance for years to come. I know of no single effort in my time comparable to the shot in the arm given to industrial safety by this conference. Many companies have outstanding safety records and have maintained them. Other companies are improving their safety

"WOVEN-GARDS"



**BETTER
HAND
PROTECTION
at amazing low cost**

"Woven-Gards" are hand protectors, mitts, pads and sleeves made of a new safety material. They provide flexibility, comfort, resistance to abrasion and cutting far beyond that of anything used before. They are extremely oil-absorbent and do an excellent job when handling oily, slippery sheets. The porous weave makes them one of the finest protectors for handling lower temperatures. Enthusiastic users say they have never seen values like "Woven-Gards." Excellent protection at lowest cost. Send now for descriptive folder and prices.

Industrial Gloves Co.

1715 Garfield St., Danville, Ill.
(In Canada: Safety Supply Co., Toronto)



records. Organized labor is taking a more active part in the field of industrial safety. A good illustration of that is the Resolution on Safety adopted at the 10th Constitutional convention of the CIO in Portland, Ore., November, 1948. In that resolution is the fine hand of Harry Read from Mr. Phil Murray's office in Washington. I am proud to say that Harry Read was a member of my committee, and I am sure the American Federation of Labor must feel the same

way about damage to its members.

Which brings us to a look ahead. All the work done by all the men and women on all committees, and all the finest worded documents will be ineffective unless there is cooperative effort at the level where men get hurt. A plan operating successfully in one plant, with complete cooperation between management and the working force may not be effective in another plant. So, except in a general way, I doubt that the search

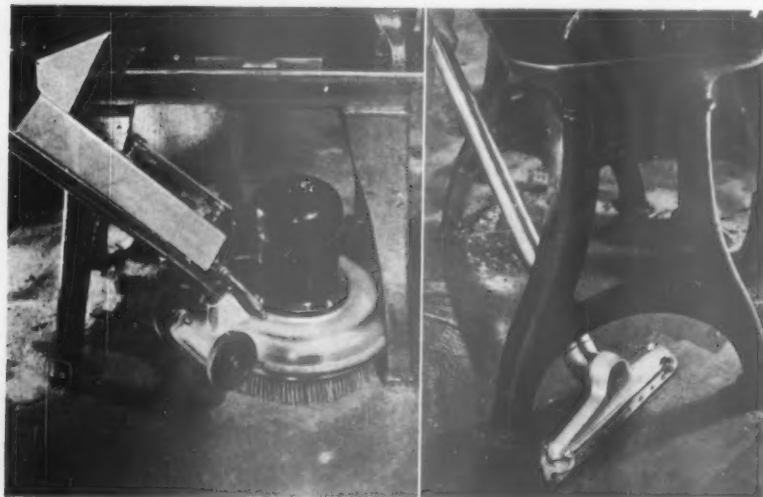
for an ideal plan will be our solution.

I believe that management must accept completely the principle that safety is primarily the moral and legal obligation of the employer. But it is not enough merely to make that statement. Management must have a sincere and continuing interest in providing for the safety of employees. There must be full and complete cooperation between employer and employee.

The recommendation of men well qualified in the field must be translated into sound safety programs, with policies, procedures and staff necessary to carry them out.

Advice by engineering and research groups will be futile unless real interest is demonstrated by management through providing safe working conditions, equipment and protective devices and apparel when necessary.

On the educational side, recommendations from the National Safety Council, presidential conferences and other groups, are of



Clean out the DANGER SPOTS with HILD System Shower-Feed Scrubbing and Vacuum Drying



WRITE FOR
FREE
CIRCULAR

HILD Equipment goes right up to and under machines where grease drippings and cutting oil condensation make the floor dangerously slippery. Shower-feed scrubbing with the powerful HILD Floor Machine quickly loosens and dissolves the slippery, greasy dirt. HILD System Vacuum Drying picks up the dirt and scrubbing solution instantly and completely. Floors are left clean, dry and slip-safe . . . without rinsing or mopping. So speedy is the HILD System that floors can be scrubbed during working hours without interrupting machine operation for more than 90 seconds. Get complete information!

HILD FLOOR MACHINE CO.

740 W. Washington St., Dept. NS-1, Chicago 6, Ill.

**SAME MACHINE DRY CLEANS
WAXES • POLISHES • BUFFS
SANDS • GRINDS • STEEL-WOOLS
FLOORS OF ALL KINDS**

Use the same HILD Floor Machine with a series of easily interchangeable attachments to put office floors in tip-top condition . . . and keep them sparkling clean and bright.

You, Too,

WILL SAY

**"This is the Finest Apron
on the Market"**

More and more customers tell us that they have never seen garments like ours which provide complete protection against grease, acids, etc., yet are light weight, flexible and wear resistant. The solid plastic sheeting we use (not a coated fabric) was developed originally for the U. S. Government and has been tested by 72 hour immersion in concentrated acids without noticeable effect.

The PROTEXALL line includes aprons of all types, smocks, bibs, arm guards. Workers like them instantly. Send for descriptive circular.

**Manufacturers' agents wanted.
Exclusive territories open.**

Protexall Apron Company, Inc.
Green Lake, Wisconsin

no real value without sound training programs for supervisors and employees.

The working force of American industry represents an impressive background of skill and experience to be tapped for ideas. We must do a better job of encouraging employees to offer suggestions for the promotion of safety.

If safety is primarily the obligation of the employer, let's have no confusion and uncertainty about management having the authority necessary to carry out its responsibility. Cooperation for safety is a moral obligation of every employee. And in unionized plants the welfare of the employee places upon organized labor a moral obligation to cooperate in accident prevention within the framework of its agreed-upon participation.

Mr. John Q. Public is a very patient individual—and a very important one. I believe he is getting a bit fed up with the never-ending brawls between management and

labor. Both of these groups can regain much of the prestige which has been lost by honestly getting together in industrial safety, which in far too many cases has had only lip service from both sides. We cannot afford to take as much time as we have in the past to make a radical improvement in our safety record. As Marcus Aurelius once warned himself, "Do not act as if you had a thousand years to live."

Development of a safety program can too easily be one of those

matters that a busy executive can keep putting ahead in his follow-up file. I suggest that the responsible executive ask for the previous day's accident record as he now asks for sales, production and employment data. In cases where the safety record falls short of the desired goal, he should take steps to remedy the situation.

But remember, it is later than you think! Safety is a job for every one. I don't care whether you make bricks, lay them, or



Dravo Crane Cab Coolers are simple to install; all parts are readily accessible for servicing.

DRAVO CRANE CAB COOLERS

ASSURE OPERATOR COMFORT

Operators of hot-metal cranes are more alert and efficient when you protect them from fatigue and discomfort by air conditioning the cabs with Dravo Crane Cab Coolers.

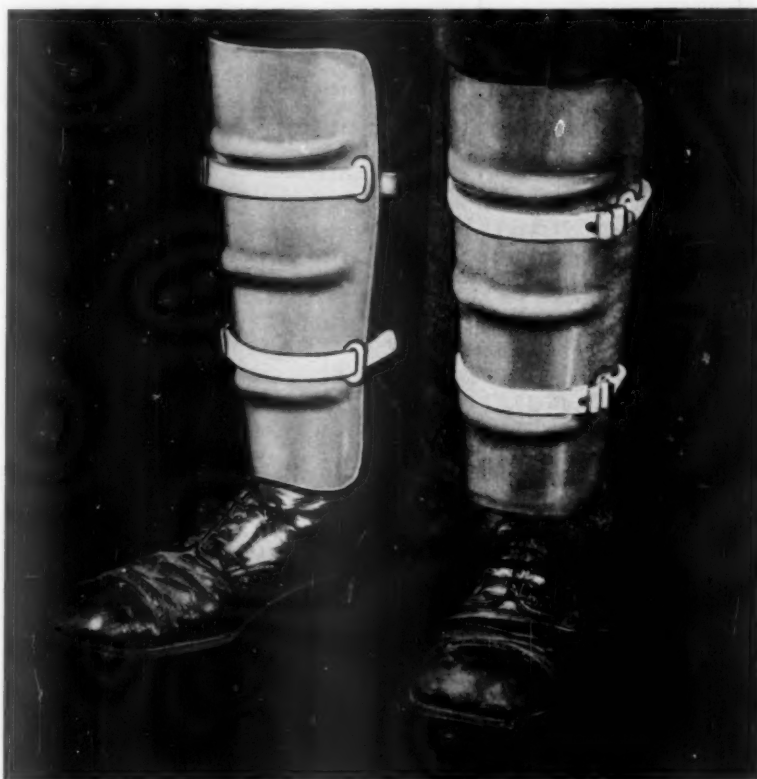
Completely self-contained, and requiring only an electrical connection, the Dravo Crane Cab Cooler provides complete air conditioning:

- Cooling
- Fume and Odor Removal
- Dust Filtering
- Continuous Ventilation
- Dehumidifying
- Winter Heating



DRAVO CORPORATION

PITTSBURGH • PHILADELPHIA • CLEVELAND
NEW YORK • CHICAGO • DETROIT
ATLANTA • BOSTON
Sales Representatives in Principal Cities



"SANKEY" Fibre Shin Guard No. 300

This guard is formed to the contour of the leg, with three horizontal ribs for added strength and rigidity. Pads are fastened to the top and bottom of the inside of the guard, providing comfort and acting as a shock absorbing device. Height 12". Width at top 5" and bottom 3". Weight 9 oz. each.

ELLWOOD SAFETY APPLIANCE CO.

219 SIXTH STREET

Write for descriptive literature

ELLWOOD CITY, PA.



Combination
Foot-Shin Guard



Improved
Foot Guard



Fibre Shin or
Shin Knee Guard

throw them. It is a purely practical matter. We are beginning to realize, slowly, that it doesn't pay to get hurt.

Forgetting the human relations angle entirely—lost wages, medical expenses, workmen's compensation do a job on industrial efficiency that we should keep in mind when we are tempted to boast. The record of industrial safety in the future, and the relationship it bears to the present appalling toll of life and limb will be governed

by the ability of management and workers to cooperate.

The Highway Engineer

(From page 29)

taking part in the annual all-employee safety meetings, these should be the important part of any safety activity.

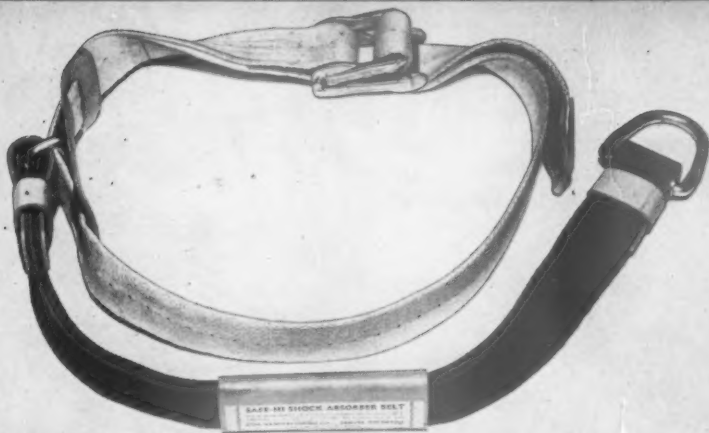
Most maintenance organizations function by districts; therefore, the safety program can best be or-

ganized by districts. Each district can have a safety committee that holds meetings possibly once a month, to review all matters pertaining to safety and make suggestions and recommendations to the maintenance administrative officer. This committee should consist of representative employees selected from throughout the district, and the membership should be rotated as far as possible among the employee group.

Each district can also have an accident review board that will meet whenever conditions require, to review all accidents, hold hearings, and place responsibility for accidents. The accident review board should include a representative from the safety committee, a representative from the statewide safety division, a representative of the state highway enforcement officers (usually a captain from the highway police organization), and the district maintenance engineer. The chief maintenance engineer can act as ex officio member in case of a tie vote or appeal.

In order to guide the work of

Safe-Hi SHOCK ABSORBER BELTS



THE BELT THAT "PUTS ON THE BRAKE" when stopping a falling man!

Note the Unolyn shock-absorber, between belt and life line. The difference between a fall cushioned with this device and the violent jerk when a man hits the end of his lifeline in conventional safety belts—is the difference between stopping your auto with brakes or stopping it against a stone wall!

Unolyn (of the nylon family) has the amazing ability to elongate, without rebound, to several times its original length under such a load as a falling man. This s-p-r-e-a-d-s the impact—even when steel life lines are used. Men's lives are saved!

Shock absorbers also available with attachments to fit your present belt.

See your safety dealers or write

Safe-Hi
PRODUCTS

ROSE MANUFACTURING
COMPANY

1731 Arapahoe, Denver 2, Colo.

PRODUCTION GOES UP!

COSTS GO DOWN!



when you
protect your
workers with
**OLYMPIC
GLOVES**

This plain canvas glove (#1800) is "Olymized", a process which makes gloves so treated outlast ordinary untreated gloves by as many times as 3 to 1 or 9 to 1, depending on the job. Will not peel or crack, non-slippery, non-toxic. Washable; retains its softness and flexibility. Also made with long and short cuffs. Remember . . . Olympic has a glove to fit every job!

FREE Illustrated Catalog of Safety Work Gloves, Finger Protectors and Safety Apparel sent to Business Organizations on request.

OLYMPIC GLOVE COMPANY Inc.
25 Madison Ave., Dept. 15, New York 16, N. Y.

60 YEARS OF FIRE & SLIPPING CONTROL IN OIL & GREASE PLANTS IS BEHIND



In Canfield's own refining and grease plants and warehouses . . . where oily, greasy floors present a real problem in slipping and fire hazards, Oil-Spunj has shown the maximum oil and grease absorption . . . maximum floor coverage . . . maximum reduction of slipping accidents and flash fires.

Canfield knows what it takes to prevent oily, greasy floors . . . Oil-Spunj has what it takes!

Write for
Samples and Prices



177

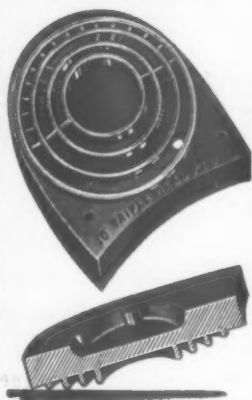
CANFIELD OIL COMPANY

GENERAL OFFICES, CLEVELAND 4, OHIO

Plants: CLEVELAND, OHIO; CORAOPOLIS, PA.; JERSEY CITY, N. J.

NON-SKID SAFETY

SHOCK
ABSORBING



LONGER
WEAR

The Triple Safety Heel was designed to minimize foot slipping accidents. It has a tread design of circular ribs with connecting cross bars that causes suction. In walking it gives road contact of one inch, where ordinary heels contact only on the edge. Laboratory tests show Triple Safety Heel has 97% road contact and traction.

Design permits rubber to flex, absorbing body shocks, minimizing fatigue. Triple Safety Heels will give longer wear and reduce slipping accidents on wet or slippery floors.

WRITE FOR CIRCULAR

TRIPLE SAFETY HEEL CO.
3149 Leland Avenue Chicago 28, Ill.

the district committees, a safety director or other statewide safety official should have a traveling representative who meets with the district units. This representative acts as message bearer from one district to another, and spreads the good and bad safety information throughout the state. In Minnesota one statewide safety man devotes his time to industrial safety, and one devotes his time to motor vehicle safety. These men work under the direction of the state traffic and safety division, but cooperate fully with the maintenance organization in whatever matters are pertinent to the maintenance division. Except insofar as they may serve on the District Accident Review Boards, the representatives of the safety division have no authority for enforcement — theirs is a persuasive and educational function.

After a safety program has been started, it is expected that all foremen, superintendents, and others engaged in directing the work of the Maintenance Division, will be conscious of safety requirements and regulations, and active in their utilization. In other words, it is expected that all employees in any maintenance working unit will be constantly reminded of their responsibility towards safety by those in charge of directing their work.

Safety committees are made up of employees from representative locations in each maintenance district, and are ordinarily comprised of highway sectionmen and helpers, heavy equipment operators, inspectors, laborers, mechanics and foremen; with the committee chairman being selected by committee members. Members are usually rotated each quarter, to permit a maximum number of employees to serve on the committee — thereby maintaining wider interest in safety.

Ordinarily foremen, superintendents, and other supervisors may not necessarily serve on the district safety committee unless selected by employees for that function. The District Maintenance Engineer, however, is an ex officio member of the district safety committee and is also a member of the Accident Review Board.

Safety IN WINTER



WITH

McDonald SAFE-T-HAT and WINTER ACCESSORIES



WINTER
HEADBAND

Fleece-lined for winter comfort.

ZERO HOOD
with added neck protection. Heavy weight for extreme cold. Medium and large sizes.



WRITE FOR BULLETIN AND PRICES

B. F. McDONALD CO.

Manufacturers & Distributors
of Industrial Safety
Equipment



5112 South Hoover Street
Los Angeles 37, California

Other Offices in San Francisco & Houston

The safety organization in a maintenance district is responsible for the distribution of bulletins and other information that is passed on to all employees in the organization. In some cases the district safety committees hold their meetings at different points in the maintenance district and the employees in those particular localities are asked to attend the local meeting for the purpose of discussing safety problems that appear to need special attention.

2. Program

Material used in carrying on the safety program originates from many sources. Perhaps the largest source of material comes from employees themselves, who submit suggestions to their local safety committees. If these problems can be handled within the district, the District Maintenance Engineer takes care of the situation without further ado. If they are of such a nature that they need statewide

attention, the matter is referred to the central office.

If a safety program is to be successful, there should be a safety publication which is mailed out to all employees from time to time. In Minnesota a publication, *Safety News*, is issued monthly and keeps all employees informed on the relative standing of the 16 maintenance districts in their contest for the best safety record. Pertinent, timely, and interesting comments and articles are also published in the pamphlet. Special bulletins, posters, and other similar material is secured from the central office safety division, and much valuable material is also available and secured from the National Safety Council.

The National Safety Council has prepared posters and bulletins covering practically all phases of safety. The Council also has bulletins, articles and other information on a variety of subjects that can be secured upon request.

Posters put up in conspicuous locations, as in district storage

The commonsense way to CLEAR AND PREVENT ATHLETE'S FOOT

In Shower Rooms

**SAFE, NON-POISONOUS SKIN TOUGHENING
TO COUNTERACT THE SOFTENING
EFFECTS OF WEARING SHOES**

**NEAT, CLEAN
ODORLESS,
PLEASANT TO USE**



**BATHERS LIKE ONOX
IT MAKES THE FEET FEEL FINE**

Recent research has upset former theories regarding the control of Athlete's Foot. ONOX is revolutionary. A safe, non-poisonous skin toughener does the work. You may test it under any conditions you choose to impose and without obligation. For example:

- *We will ship prepaid, your trial order for any amount of ONOX and equipment. Use it for 60 days. If at the end of that time ONOX has not proved itself to your complete satisfaction you owe us nothing.*

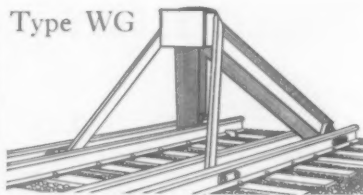
We would like to send you the simple details of the ONOX method now used by hundreds of institutions—coast to coast.

ONOX, INC., DEPT. L, 121 SECOND STREET, SAN FRANCISCO 5, CALIF.
WAREHOUSES: BROOKLYN, CLEVELAND, NEW ORLEANS, LOS ANGELES

Important: Did you note the "Radical reversal of medical teaching" in *TIME* Magazine? A report based on 10 years observation by 91 U. S. Skin Specialists calls Foot Baths "Futile"—"Illogical"—"Potentially harmful." Onox on the other hand is a safe, non-poisonous skin toughener. IT STEPS UP RESISTANCE... INSTEAD OF BREAKING IT DOWN! Try the Onox way. You'll be surprised!

(Copy of *TIME* article sent on request.)

Type WG



When a bumping post is knocked out don't simply say "they hit it too hard" and let it go at that. Your investigation will lead you to use Hayes Posts, designed by engineers for engineers. Hayes has led since 1903 in safety devices for railway side tracks; Bumping Posts, Cushion Wheel Stops and Derails.

HAYES
TRACK APPLIANCE CO.
122 N. 3rd ST.
RICHMOND, INDIANA

buildings, etc., have a very beneficial effect in keeping up interest in safety. A good and interesting supply of literature and posters seems essential to the success of any safety program. In order that the safety program may be uniform throughout the state, a safety manual should be prepared and issued to all employees. The manual covers in detail all phases of the safety organization and program and contains many valuable suggestions to employees and to those in charge of employees.

During annual meetings when large groups of employees assemble to hear safety discussions and get their safety awards, it is often a good plan to use moving pictures for educational purposes. Excellent films can be secured from the National Safety Council. These are usually prepared and composed in a manner that is interesting to the working man.

It is, of course, essential that proper channels of distribution be set up to take care of all safety material information that has to be disseminated among our employees. In Minnesota the district office is the point from which all material is distributed to the employees in the maintenance district. It is at the district office that the annual meeting is held, and at the district office where the Accident Review Board meetings are also held, etc. Any pamphlets or similar information which are mailed out individually are usually enclosed with pay checks, which insures that each employee on the payroll will get one.

3. Enforcement and Rewards

In any activity such as a safety program there are always cases where persuasion and education are not effective and some method of penalty must be invoked. In Minnesota this is not done very often, but a phase of operation occasionally develops which results in accidents that do not seem to be susceptible to correction by education, as, for instance, at one time we had a wave of "backing" accidents in which much property was damaged and a number of employees were seriously injured. It became necessary to impose suspensions without pay on employees involved. After this policy

Better Working Conditions

don't overlook a modern drinking water supply!

The most modern improvements mean nothing without that most important step . . . assurance of plentiful refreshing cool water for every worker! It's a must in any 1950 modernization program. Specify the favorite of industry . . . Halsey Taylor fountains and coolers.

THE HALSEY W. TAYLOR CO.
WARREN, OHIO

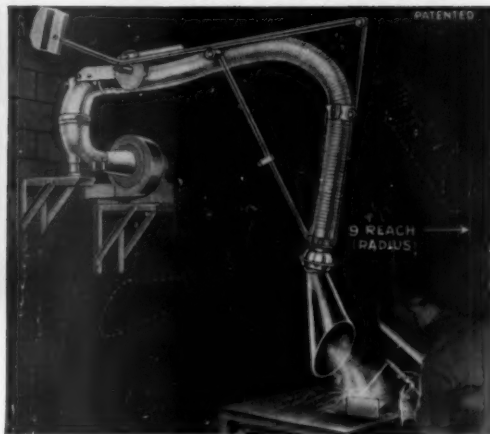
HALSEY TAYLOR
Fountains and Coolers

RUEMELIN Fume Collector



(Above) Welding without ventilating snout. Note smoke clouds and poor vision. Gases and heat surround operator's helmet.

(Right) Collecting fumes with a Ruemelin Fume Collector.



REMOVES WELDING FUMES at the Source!

Solve your welding fume problem efficiently by installing Ruemelin Welding Fume Collectors. They produce a powerful suction that removes smoke, gas and heat at the source. Guards employee health, resulting in less welder fatigue. Clears shop air with minimum heat loss. Covers maximum welding area vertically, horizontally and by circle swing. Made in 9 ft. and 15 ft. reach sizes. Shipped assembled, easy to install. Thousands in practical service. Free engineering service for your installation.

Write for our New Bulletin 37-D and list of users.

RUEMELIN MFG. CO.

MANUFACTURERS AND ENGINEERS

SAND BLAST AND DUST COLLECTING EQUIPMENT

3885 NORTH PALMER STREET

MILWAUKEE 12, WISCONSIN, U. S. A.



SINGLE LINE MARKER
Hand-propelled model.
Easily operated by any
shop maintenance man.

MARK FACTORY AISLES for Plant SAFETY and EFFICIENCY

A well-planned orderly factory is a distinct asset to any firm. Start by striping all factory aisles, storage areas, safety zones, etc. An M-B Marker simplifies the job. It lays down clean-cut lines, quickly and easily. Paves the way for safe traffic through plant . . . reduces accident hazards . . . adds to plant efficiency. Convertible to all purpose paint sprayer. Write for literature.

MEILI-BLUMBERG CORP.
BOX 165
NEW HOLSTEIN, WISCONSIN, U. S. A.



INDUSTRIAL MARKERS

A 5395-1/2-A

NOW

for a better fit, more comfort, longer wear

**NEW,
IMPROVED**



**CURVED-FINGER
GLOVES!**

HOOD has done it again! For years, **HOOD** gauntlets and knit wrist gloves have been the choice of industry. Today, the new, improved models are ready to provide new comfort and safety for vital hands. Exhaustive tests prove their superior wear! There's ample knuckle allowance! Fingers and thumbs are curved for more efficiency! Gauntlet shown has thumb crotch reinforcement! There are no seams on the working surface! Knit wrists are color fast! Both models are bigger, more flexible! Yes, be sure of new protection, new efficiency with the new, improved **HOOD** Industrial Gloves. Order from your jobber today!



HOOD RUBBER CO.
Watertown, Mass.
DIVISION OF THE B. F. GOODRICH COMPANY

had been in effect for some time, the backing accidents seemed to disappear. Safety by penalty is not a satisfactory method. If indulged in too extensively, it would probably fail of its objective. In some instances, however, it seems to be justified and effective.

In order to keep up continued interest in the safety program, a system of awards has been set up. The maintenance district having the best over-all record relating to industrial accidents receives a plaque, which is awarded at the annual meeting. A plaque is also awarded to the district having the best motor vehicle operation record. In addition, each employee with an accident-free record receives an emblem and a certificate signed by the Commissioner of Highways.

4. Statistics

Accident statistics are recorded on regular report forms and submitted by employees to their respective maintenance district offices. From there they are forwarded to the central office for further analysis and compilation. Each accident is investigated by a representative of the Safety Division of the central office, as well as by the district maintenance engineer, and sometimes by members of the safety committee. Part of the statistics relating to safety are compiled in the district office, but the final compilation is made in the office of the Division of Traffic and Safety and the results are tabulated and made a part of the records of the Highway Department. The pertinent facts of the results of these tabulations are printed in *Safety News* and are also compiled in special reports submitted to the Commissioner of Highways, the maintenance engineer and the district maintenance engineers. Data so gathered and compiled are used to determine the various awards made.

5. First Aid

While many employees have from time to time taken instruction in first aid, it has not been the practice of the department up to the present time to require all employees to be trained in first aid work, nevertheless each piece of major equipment carries a first

aid kit to take care of minor injuries. It is a standing order that any employee injured, regardless of how small the injury may be, is required to see a doctor if there is any doubt about the consequences. Infection is one of the greatest sources of employee disability and may lead to some of the most serious and costly cases.

6. Nature of Work

Maintenance work covers about every activity one might think of in connection with road building or road maintenance. The items are almost too numerous to mention, but regardless of the work, each activity affords plenty of opportunity for accidents.

In addition to working on the highway, employees must be transported to and from their jobs, and here there is also plenty of opportunity for accidents. In Minnesota a number of men have been seriously injured by falling out of trucks, or slipping under the truck wheels while trying to get into the truck.

The type of equipment operated by maintenance employees varies anywhere from a small scythe, with which weed cutters may frequently cut themselves and others, up to heavy crawler-type tractors used for road grading, and 10-ton trucks used for snow plowing. Numerous types of sawing, digging, burning, cutting, and pounding equipment are used by maintenance employees, all of which can produce serious accidents to employees and road users if carelessly operated.

7. Storage Yards

Storage yards can be a source of accidents during the handling of materials and equipment, the parking and moving of vehicles, etc.

Last, but not least, every safety program must include a thorough coverage of employee conduct with relation to the public which uses the highways. It is not sufficient that the employee be protected from injury to himself; it is even more important that he be trained so that he will not cause accidents to others using the highway while he is trying to repair it.

The guiding of traffic over a highway, the surface of which is

NOW...Links of VINYL PLASTIC bring You a Better FLOOR MAT

- Greater Resistance to Gas, Oil and Grease
- Longer Wearing Life
- Distinctive Beauty With Utmost SAFETY—

Here's the New Vinyl Link Mat that meets unlimited service applications.

KEEPS ITS NEW LOOK...

These Vinyl links outwear ordinary rubber links many times... Color stays clear and bright... They resist soil absorption, keeping their clean look longer. They are firm and resilient, giving continuous slip-proof SAFETY. They resist oil, gasoline and grease — won't soften or damp rot. Assembly of colored links permits optional designs in red, brown, green, white and black.



IN STANDARD COMBINATION OF COLORS and SIZES — Or Made To Your Specifications —

Standard pattern shown above: Black with red link border and center in 17" x 25", 18" x 30", 24" x 36", 30" x 48"... Made also to your requirements in size and color design... Write today for full story and prices.

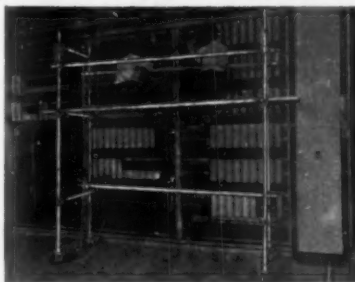
MELFLEX PRODUCTS COMPANY, Inc.

L. E. WARFORD, President

410 S. Broadway, Akron 8, Ohio

In Canada: P. O. Box 411, Fort William, Ont.

Simplify YOUR WORK



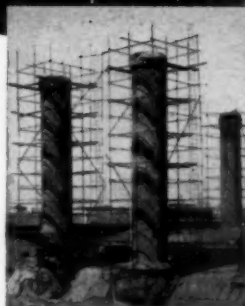
With casters — a rolling scaffold

You'll Insure Greater Safety, Too!

Tubelox meets every industrial need. Only four basic parts are used. "Tubelox" is the most versatile and economical scaffolding — indoors or out — for small, fixed-type scaffolds or large. Quicker to erect and take down. Scaffolds, equipped with brake casters, also may be made with four basic parts. Complete stocks for sale or lease.

MANUFACTURERS OF:

GOLD MEDAL Tubelox Steel Scaffolding • Scaffolding Machines • Swinging Scaffolds • Sidewalk Bridges and Canopies • TROUBLE SAVER Sectional Steel Scaffolding • Adjustable Trestles • Steel Scaffold Brackets • GOLD MEDAL Safety Ladders



Stack work at pumping station



FOR GREATER SAFETY... EFFICIENCY... ECONOMY

THE PATENT SCAFFOLDING CO., Inc.

Dept. NSN, 38-21 12th Street, Long Island City 1, New York

See Your Classified Telephone Directory for nearest GOLD METAL Distributor.

SAFETY EQUIPMENT FOR ALL INDUSTRIES

"As Quick As A Flash"

INCREASED PRODUCTION IN TWO EASY STEPS



- 1 Strike rubber cup lightly against sheet or blank to be handled. This produces a vacuum within the cup and holds securely.
- 2 Releases instantly by depressing thumb lever.

IPCO PUNCH PRESS FEEDER

A speed-up tool for lifting, feeding and positioning blanks of metal and other materials in stamping machines and die presses without inserting the hands or fingers within the danger zone . . . Used for separating sheets, transferring from piles or stacks . . . Many other uses on all non-porous materials.



Write for Bulletin K-10

Safety Equipment for all Industries

INDUSTRIAL PRODUCTS COMPANY

2850 N. FOURTH STREET • PHILADELPHIA 33, PA.

are your glove costs too high?



YOUR COST DEPENDS ON THREE FACTORS

- 1 Using the correct glove for the job.
- 2 Proper stock control. A clean pair for a dirty pair.
- 3 Salvaging by proper cleaning, repair.

Wash-Rite specializes in "Rite-to-Wear" gloves for every job. Complete stocks. Immediate shipment. We have assisted many of the country's largest industries in setting up a money saving glove control system.

"Wash-Rite" is exclusively engaged in the correct and scientific cleaning, sterilizing, repairing, reshaping and processing of industrial work gloves, aprons and other protective clothing.

REDUCE YOUR COSTS WITH "WASH-RITE'S" PROVEN SERVICE. SEND US A FREE TRIAL ORDER TODAY!

Wash-Rite Company, Inc.

1412-26 CORNELL AVENUE • INDIANAPOLIS 2, INDIANA

impaired because of road work, is another important phase of the safety activity. Proper use of warnings, methods of flagging, verbal contact with road users, advance information to prospective road users, all become important items in a well rounded safety program.

It might be well to comment at this point regarding the need of advising and educating contractors and their organizations in safety practices, particularly where traffic is being carried on the highway simultaneously with contract operations. Much remains to be done in the way of providing adequate warning and information signs for the public and in providing safe and courteous guidance through the contractor's operations for the public. Uniform methods of flagging are a crying need, as anyone who has driven through several contract operations on one trip can testify. Here again the National Safety Council could be helpful in distributing information about desirable uniform practices.

Setting up a safety program in a maintenance organization will produce desirable benefits. Not the least of these is developing a feeling in the employee that he is an important part of the organization. This makes for good morale as well as for safety.

Violation of such ordinances would mean exceeding decibel limits per octave bands, on the same principle a motorist exceeds the speed limit, Dr. Hardy explains.

"One use of the survey," says Dr. Hardy, "will be in writing codes and ordinances for cities all over the world."

Diary

(From page 37)

yet—it takes time for data to accumulate. And as for the difficulty of filling out forms, that's bunk. We've all used 'em, and we can handle a form in a few minutes.

I could see part of the conflict in that last sentence. Jack and Jim and I, of course, know the American Standard Code for accident causes backwards and forwards. Also, we know what's important and what's trivial. Also, we know

how to get the information quickly. But I could see a guy who was new to the Code stumbling over unfamiliar terminology, fumbling around in his search for information, weighing the importance of this or that set of facts. I checked the file, and sure enough, plenty of the report forms had lines crossed out and separate ideas interlined as after-thoughts. Once, under "Contributing Causes," we found written out carefully, "American Red Cross."

But a more basic problem, it seemed to me, lay in the question of the usefulness of the data when we got it. I decided to try an experiment that I should have tried before putting the system into operation. I called in Louis and Jim, and they joined me in developing a fictional set of statistics for the next six months. From our knowledge of the plant and its experience, we listed on Jack's summary forms a plausible tabulation.

These summaries we turned over to Jack for analysis. Jack drew up a report based on the hypothetical data. The company-wide report made sense. The main plant report did, too. But when we came to the departmental and outlying plant breakdowns, my eyebrows went up.

In Riley's department, for example, we reported one lost-time injury and 17 first aid cases. The cause breakdowns showed a concentration of minor accidents from handling material, mainly splinters. There were three falls, one of them accounting for the lost-time accident. The remainder of accidents were scattered.

I put it up to Jack: "What good is this to Riley? He already knows these are major problems. The number of cases is too small to be reliable. There isn't a single kick-back accident—but we know that's a serious problem in his department. By the time we try any cross tabulations by hour of day or environmental factors, our data dissolve on us—there's hardly a cross tab cell that has more than two cases."

Jack came back, "The real value, which we knew all along, is in the main reports. If this was real data, you could put your finger, for instance, on this jam-up of material



Reece Orthopedic Shoe

for
BROKEN FOOT BONES
CRUSHED TOES
SWOLLEN FEET



No. 175—MEN'S
No. 173—WOMEN'S

WOOD SOLE ACTS AS SPLINT—HASTENS HEALING

Corrugated metal footguard is optional. High enough to permit heavy bandaging. Gives maximum protection against further injury while working.

KEEPS ME ON MY FEET
ON THE JOB.



No. X175-CG
No. X173-CG

REECE WOODEN SOLE
SHOE CO.

DEPT. NS-1

COLUMBUS, NEBRASKA

There is no
substitute
for Reece
Wooden
Soles



wear a

DUPOR No. 40

the Respirator that is
U.S.B. of M. Approved
for Type A Dusts

More than 40 sq. in. twin filter area.
Sanitary face cloth. Soft rubber face
mask. Controlled breathing . . . check
valves guard against re-breathing stale
air . . . exhalation valve exhausts breathed
air. Greater visibility . . . no blind spots!
Does not interfere with goggles or glasses.

Sample \$2.50
sent

H. S. Cover Fog-Proof, Gas-Tight Goggles for use with above respirator . . . \$1.65 pp.

H. S. COVER, South Bend, Ind.

PIPE MARKERS



anyone
can use—
everyone
can read

QUICK-LABEL Pipe Markers conform to American Standards Association Pipe Identification System. QUICK-LABELS come on handy cards . . . stick without moistening. Names of materials printed in large black letters on correct ASA background colors. CAN BE READ UP TO 75 FEET. Markers for over 140 materials, **including all materials listed in ASA Standard A13**, available on Brady Stock Cards. Specials made to your order. QUICK-LABEL Pipe Markers are Silicone Plastic coated to resist dirt, grease, fumes, moisture . . . indoors or out. Replace slow and costly painting and hand stenciling. Exclusive Starter-Strip automatically releases part of label for fast peeling. QUICK-LABELS mark your pipes so that anyone who can read will know what's in them. **QUICK-LABELS leave no room for doubt . . . or tragedy.** Write for useful literature and FREE SAMPLES today.

**FREE
SAMPLES**

W. H. BRADY COMPANY Established 1914
Manufacturers of Self-Sticking Tape Products
CHIPPEWA FALLS 2, WIS. • Distributors in 125 Cities

*"Know-how" gained in serving industry nation-
wide enables Marsh & McLennan engineers
to contribute much toward the conservation
of human life, industrial health and property.*

MARSH & McLENNAN
INCORPORATED

Insurance Brokers

CONSULTING ACTUARIES
AVERAGE ADJUSTERS

Chicago New York San Francisco Minneapolis Detroit Boston
Los Angeles Pittsburgh Seattle St. Louis St. Paul Duluth
Indianapolis Portland Superior Washington Cleveland Buffalo
Columbus Phoenix Vancouver Montreal Havana London

handling cases in mid-afternoon, or the indicated concentration of machinery cases in a couple of departments. The department reports, granted, have little statistical significance. I see that now. But maybe they'll serve as window dressing to keep the supervisors happy."

I blew up. It wasn't altogether fair to Jack, because I approved the plan, had tried to think it through, and there was less excuse for my error of judgment than for his. But I could see just how this "window dressing" was going to work. Here we tried to sell the system to supervision on the basis that it would help solve their individual accident problems. We told them it wouldn't be much trouble. Now they know it is a lot of trouble—and when they find out that the departmental information we give them isn't worth a hoot, Lord help us!

Obviously, I've got to go into that meeting next week, prepared to let my hair down. I've got to do my darndest to sell them the idea (which is valid) that they'll get enough good, six months from now, out of the general report to justify their clerical labor. I've got to show them how they can apply the general stuff to their local situation, taking what is relevant and rejecting what isn't. And I've got to get up, quick, a revised, simplified form to put in when they give me the cold and fishy stare after I get through talking.

O, Lord, make me be eloquent at that meeting!

(To be continued)

Industrial Health

(From page 53)

addiction and a scientific analysis of predisposing and precipitating factors.

3. To suggest and employ tested methods of helping them overcome their difficulty.

4. To employ a consistent policy of referral to Alcoholics Anonymous and other centers of treatment where deemed advisable.

5. To cooperate with agencies devoted to the cause, such as the Council of Social Agencies, county and city probation officers, state

It's New!
HALCO PRESSURE BANDAGE



Recommended for:

- Large Wounds Dressing
- Control of Hemorrhaging
- Pressure Dressing for Burns
- Immobilization of Injured Areas

Descriptive folders and further information sent upon request.

A. E. HALPERIN CO., INC.

75 Northampton St.
BOSTON 18, MASS.

A Dust-Free Plant

IS ALWAYS MORE

EFFICIENT

Consult DRACCO ENGINEERS

about DUST and FUME
CONTROL



DRACCO CORPORATION

4043 E. 116th Street • Cleveland 5, Ohio

welfare officers, Alcoholics Anonymous, and similar groups and organizations.

6. To acquire summaries of recent, worthwhile efforts on the subject, indicated in publications of the nature of the *Quarterly Journal of Studies on Alcohol* and other scientific periodicals. To add representative studies to the library.

7. To have members of the committee and those engaged in the program attend conventions on alcoholism in order to obtain first-hand information on latest research and methods of attack. To have members of the committee represented by memberships in associations for the prevention and treatment of alcoholism.

8. To foster by means of slogans, posters and other means, a scientific interest in the problem.

In this plant the individual may either come voluntarily to the committee for aid or may be referred to the committee by his foreman or other supervisor. A representative of this committee then collects the necessary data for a complete study of the case. The data is studied and interpreted by the committee and its technical assistants before recommendations and disposition of the case are made. It is emphasized throughout the procedure that the alcoholic is a sick person who needs help and understanding rather more than discipline.

While the committee does not concern itself with disciplinary action it does not wish to give the impression that every alcoholic can be salvaged or that they have salvaged every case with whom they have worked. They have used every available aid both within and without the plant, including counseling, medical aid, social service work with the family, cooperation with Alcoholics Anonymous and special clinic facilities available in the community. During the period of study slightly less than one-fourth of the alcoholic disciplinary cases have been discharged. The results to date are considered very favorable and the reception of the project by both supervisors and the employee have been extremely favorable.

HE WORKS SAFE!



BELT
No. 88

BASHLIN'S Tool-Dee Belt 10" Body Movement

The sliding tool loops keep tools always within easy reach. The built-in extra safety factor saves the Safety Strap from wear . . . and, man, it's comfortable too! When it's a Bashlin Safety Belt, you know it's right.

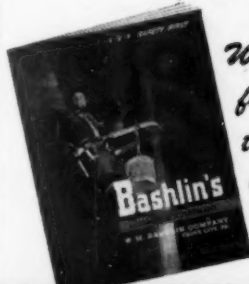
One piece aluminum sleeve adjusts from 15" to 18" in multiples of 1/2". Locked in place with standard steel screws.

Another First

Comfort on the job, lightness and safety combine in Bashlin's adjustable Climber with removable gaff . . . Forged of aluminum alloy, the Bashlin Climber is lighter than conventional climbers and the Same Strength as Equivalent Steel. It's form fitting and has all the original Bashlin features.

No.
BD 14

Removable gaff forged from alloy steel, features triple locking device with standard tested steel screws.



Write
for
this
catalog

W.M. BASHLIN
COMPANY
GROVE CITY 3, PA.



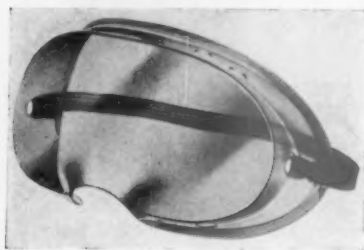
NEW SAFETY EQUIPMENT FOR INDUSTRY

Further information on these new products and equipment may be obtained by writing direct to the manufacturer. It will help in identifying the product to mention this announcement.

Lightweight Goggle

A new safety goggle extremely light in weight but heavy in eye protection has been announced by Chicago Eye Shield Co., 2300 Warren Blvd., Chicago 12, Ill.

The goggle—the new lightweight Coverlite—weighs only 97/100 of an ounce.



This negligible weight is distributed evenly over the nose, brow and cheeks. The goggle is exceptionally sturdy. The injection moulded, non-flammable plastic frame gives protection from impact, dust, flying sparks and chips. Ample air space and ventilation prevents fogging while the large frontal area provides a wide range of vision in all directions. Another feature is the easy-to-adjust elastic headband.

Ideal for buffing, polishing, light assembly and spot welding, the new goggle is available in clear, light green or dark transparent frames. It also permits comfortable wear over most types of personal glasses without interference to the wearer.

New Huntington Products

Huntington Laboratories, Inc., Huntington, Ind. announce a new pine-type germicide that kills all common bacteria. The new product is called Scento-Pine.

Compounded of steam distilled pine oil, soap and new chemical synthetics, Scento-Pine has an advantage because it cleans and deodorizes as it disinfects. The pine oil-soap combination assures a dirt-free surface upon which the germicidal agents may work. The products has a phenol coefficient of five. It may be diluted with up to 100 parts of water, and in dilution, produces a stable emulsion. Scento-Pine replaces obnoxious odors with a clean, pleasant pine aroma. It is recommended for general hospital use and for industrial use in washrooms, locker rooms, dispensaries, on walls and floors to control the infective germ menace. It is ideal for the scrub bucket, for disinfecting dust rags and brushes and for sanitizing mops.

This company has developed a new emulsifiable mop dressing — Huntolene Emulsifiable Floor Maintainer. The new product is recommended as a daily treatment for floors, walls, furniture, even blackboards. It cleans quickly and thoroughly because it gets all the dirt on contact.

Because it emulsifies, or mixes with water, Huntolene breaks up into micro-

scopic parts when a treated mop or cloth is washed. These particles are suspended in the water and float away, so that embedded dirt and grime wash out completely, leaving the mop clean and fluffy, sanitary and easy for the custodian to handle. The new product leaves a fine film that helps to prolong the life of sealed, varnished, waxed or unfinished surfaces.

Oil Cup and Gauge

The combination oil cup and oil gauge developed by Trico Fuse Mfg. Co., 2948 N. 5th St., Milwaukee 12, Wis. serves a dual purpose. It can be used as a visible oil cup to replenish oil in bearings, transmission and crankshaft cases and also as an oil gauge for the purpose of checking oil levels periodically. Because of the visible feature, it can be installed at any convenient distance from the machine—on

the outside of housing, on the other side of the wall or even around corners of a room. Crystal-clear, shatter-proof plastic bottle keeps oil supply always visible. All metal parts are heavily plated for corrosion resistance and easy cleaning. It has large, self-closing dustproof filled cap for easy filling and cleaning. Easily and quickly installed. Available in 1, 2, 4 and 8 oz. capacities.



Humidifying Unit

A new line of humidifying units, suitable for atomization of water, chemicals, insecticides, perfumes, and the like is being marketed by the Paasche Airbrush Co., 1909 Diversey Parkway, Chicago 14, Ill. Claimed to be an inexpensive but dependable moisture and humidity control, the new units will maintain moisture uniformity.



Available in three sizes, the new Paasche units will diffuse up to one, two and three gallons of water or other liquid per hour, respectively. These capacities are claimed to be sufficient to control the humidity within 2 per cent fluctuation in areas of 15,000, 30,000 and 45,000 cubic feet of space. The required air pressure is six cubic feet per minute at 40 pounds, supplied by any suitable air compressor.

Ladder Treads

J. E. McKinley Co., 549 Crescent Ave., Glenside, Pa. has developed the E-Z Treads for use on extension ladders to make it easier for painters, maintenance men, millwrights, window cleaners and others who work on ladders for long periods. These treads, engineered to fit any standard extension ladder, are spaced 12 inches apart, give a flat step, a 2 inch air gap, plus the ladder rung—a total tread surface ample for any foot.

The treads are set at the correct position to assure good balance at any ladder angle and at any height up to 50 feet. They are light in weight and will support 600 pounds. Three wooden steps are supported by full width iron-bracket supports riveted to the hangers. Hangers are strip steel.

Protective Hand Cream

A protective hand and arm cream for shop use, developed to protect skin against paints, printing ink, lacquers, grease, grime and oil, is announced by Chase Chemical Co., 2901 Dover Ave., Cleveland 9, Ohio. The product, Glov-Cote, acts like a glove over the hands and arms, forming a protective film that washes off easily even with cold water. As it dissolves, the protective coating carries with it the paint, grease, ink or grime that gathers during normal working operations. While no curative powers are claimed for Glov-Cote, it serves a preventive purpose, reducing dermatitis caused when skin is exposed to harsh cutting oils, chapping, etc.

Led-Chroxide Primer

Thomson-Porcelite Paint Co., 330 Race St., Philadelphia 6, Pa. has developed Led-Chroxide, a multi-purpose, moisture proof, metal primer. It is a balanced blend of Red Lead, Zinc Chromate, and Iron Oxide in combination that brings out the best characteristics of each of the rust-inhibiting pigments.

Led-Chroxide has a tough, highly impermeable and rust-resistant film which provides an "ideal foundation for finish coats. It dries tack free in two to three hours, overnight for finish coats, and covers approximately 500 to 600 square feet per gallon, one coat, on smooth surfaces. It has complete hiding power in one coat; will not check, peel, or crack and can be applied by either brush or spray.

Extinguisher Seals

Fredriksen & Sons, Inc., 6154 Belmont Ave., Chicago 34, Ill. announce newly designed Safe-T-Seals to identify which extinguisher to use and also to designate extinguisher is ready for use.

NEW SAFETY EQUIPMENT FOR INDUSTRY



Manufacturers are invited to send in announcements of new products, or improved special features. Only items which can be considered as "news" to our readers will be published.

The new seal is printed in two colors. Green is for use on soda-acid and cartridge types (Class "A" fires) and Red is for use on Foam types (Class "B" fires). Both seals have the following warning imprinted: "Do Not Use on Electrical Fires." The Green seal has the following warning in addition to the above: "or Gas, Oil, Paints."

Extinguisher Valve

A new, improved valve for their 10, 15, 20 and 25-pound portable carbon dioxide fire extinguishers has been announced by Walter Kidde & Co., Belleville, N. J.

All Kidde portables, from the 2½ pound size to the 25-pound size, are now standardized on the new valve principle, which incorporates several design changes that provide easier, more positive trigger-finger control in releasing carbon dioxide. The



new valve mechanism employs a pure nickel coined disc which replaces three separate parts in the previous design. The disc serves as a seat for the nylon check, as a safety disc, and as a gasket between the valve body and the cylinder. Extinguisher cylinders used with the new valve are externally threaded, rather than internally threaded. This facilitates assembly and disassembly, and strengthens the union of the valve body and cylinder neck.



Possible leakage points have been reduced to a minimum in the new valve, which must be tight enough to withstand a pressure of 850 pounds per square inch from the compressed gas, yet must operate easily to liberate the pressurized carbon dioxide with simple pressure on the trigger. The nylon check provides positive

seating under all conditions and actually permits discharge of carbon dioxide with less finger pressure than the previous valves.

Trigger of the new valve also provides an automatic warning should the safety disc rupture from excess gas pressure. Rupture of the disc pushes the trigger downward to bring the words "Replace Disc" in view.

Fluorescent Tube Disposal Unit

To restrict the hazards of fluorescent tube handling, the Standard Safety Equipment Co., 232 W. Ontario St., Chicago 10, Ill. has developed a safe and economical Fluorescent Tube Disposal Unit. The two sources of danger—beryllium, a toxic chemical, and the broken glass—are easily and safely controlled by collecting the glass fragments in a disposable container and washing away the poisonous chemical with a constant flow of water. This new unit is constructed entirely of steel, requires only one man operation, and destroys a tube in less than ten seconds.



A used fluorescent tube is inserted through a gravity door at the upper end of a 3" diameter, 4' length steel enclosure. At the lower end of the enclosure a rotating blade breaks and grinds the tubes and a steady flow of water rinses the broken glass and carries it into a porous cloth bag—the toxic powders are washed away and the glass fragments contained within the bag. When this expendable porous bag is full it is placed in a multiwall sack which is inscribed, "Danger Broken Fluorescent Tubes." With the porous bag within the multiwall sack, workers and handlers are protected because the sack resists glass penetration.

Flashing Display

The Dav-Son "Safety Director" is an illuminated changeable letter bulletin board designed to warn employees to avoid plant hazards. Flashing red and green "traffic

lights" attract attention to the important safety notices which can be changed periodically.



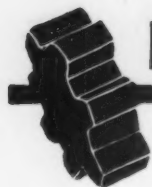
The message panel can be quickly removed from the chrome frame for convenient re-setting of changeable letters which are supplied with the display. Ninety-eight 3½" red translucent letters and figures, and 250—1⅞" black letters and figures are included.

New circular containing descriptions of the "Safety Director" together with suggestions for display locations and several examples of safety bulletins is available from the manufacturer—A. C. Davenport & Son, Inc., 311 N. DesPlaines St., Chicago 6, Ill.

Warning Device

Electro-Alarm Sales Co., 320 WOW Bldg., Omaha 2, Nebr. announces a newly designed safety warning device for heavy equipment having booms. The device fits any rig, sounds a loud warning signal each time the boom swings into the vicinity of danger. The electronic system used is doubly-protected from internal and external breakdowns and instantly indicates any failure by flashing a red light in front of the operator.

Operation is simple. Once turned on, the device works automatically yet allows for manual control of proximity. At 75 feet it can detect and warn the operator of danger in the 10,000 volt range. It is sensitive to voltages from 110 up, and allows proximity warnings from 4 to 200 feet. Rain, ice and sleet do not interfere with its use. It is particularly desirable for night work or where power lines are in a line between the operator and the sun.



NEW SAFETY EQUIPMENT FOR INDUSTRY

Further information on these new products and equipment may be obtained by writing direct to the manufacturer. It will help in identifying the product to mention this announcement.

Vehicular Fire Protection

American-LaFrance-Foamite Corp., Elmira, N. Y., announces a new 2½ gallon Foamite fire extinguisher for vehicular fire protection. The new model 5F-V-1 features Monotype Construction in Silicon Bronze.

With an ultimate shell strength of 1,400 pounds per square inch, the new Foamite Model is 65 per cent stronger than the previous drawshell model, twice as strong as a welded Silicon Bronze unit, 2½ times as strong as a fabricated copper extinguisher. It has a sealed stopper construction built into the top which prevents the chemicals from mixing until needed. Just a twist of the wrist releases the seal and the extinguisher is ready for action. Except for carrying straps, this new Foamite extinguisher is similar to the Foamite Fire Department type carried on fire engines. It



is ideal for tank trucks and other large vehicle units because it produces a fire-killing chemical foam equal to approximately 10 times its own capacity. It stops oil and gasoline fires and prevents re-flashing.

Another new feature is the means of holding the unit in place while removing cap. Holes in extinguisher skirt admit an iron bar which will hold the shell firmly, preventing damage to the extinguisher.

Shutoff Valve

The North American Mfg. Co., 4455 E. 71st St., Cleveland 5, Ohio has recently added to its production line a new Associated Factory Mutual Approved valve known as the Series "21" Safety Shutoff Valve. Designed for the protection of industrial furnaces against dangerous accumulations of gaseous or liquid fuels in the



event of a power failure, this valve stops the flow of any gas or liquid instantly when the current to its solenoid is interrupted. When the power is restored, the valve remains closed until the trouble is corrected, at which time the valve is reset manually.

Any number of switches wired in series with the solenoid can protect the installation against explosion hazards resulting from failure of air pressure, gas or oil pressure, etc., in addition to general power failure, or the valve may be tripped closed manually if desired. It cannot be wedged or propped open with power off since the resetting handle is independent of the valve stem. Featuring a globe type, soft-seating valve the Series "21" can be had with all iron body and internals for use with corrosive gases or liquids. They can be furnished with chain reset wheels for overhead mounting and with auxiliary switches for independently powered alarm systems. Available in sizes from ¾" through 6" they may be equipped with solenoids of 110, 220, 440 volts and 60, 50 and 25 cycles.

Extinguisher Decals

To help identify and locate the right fire extinguisher in a hurry, Meyercord Co., 5323 W. Lake St., Chicago 44, Ill., has developed two new decal sets for positive selection in two fire classifications: (1) wood, paper, or rubbish; and (2) electric, gas or chemical. A large decal is supplied for application to the wall above the fire extinguisher and a smaller one for the extinguisher itself. The new decals identify in three ways: by actual copy naming the type of fire, by design, and by color code.

The decal selection sign for fires of wood, paper, or rubbish origin has black and yellow diagonal bars. For electric, chemical, or gas fires, the identifying design is red and white with horizontal bars.

Platform Type Truck

To provide industry with an inexpensive platform truck which can be adapted to special transporting applications as well as less-than-carload freight handling and other material handling tasks, the Baker Industrial Truck Division, Baker-Raulang Co., 1250 W. 80th St., Cleveland 2, Ohio has developed the Baker Hustler, Type PB, 2,000 lb. platform truck. Designed for economical service in the delivery of miscellaneous materials, this lightweight truck is equally versatile for such applications as welding wagons, plant maintenance truck, personnel car, millwright utility truck, pipefitter's bench, electrician's service car, and as a package wagon in warehouses, department stores, wholesale hardware establishments, etc.

The truck has an over-all length of 104¾ inches. It is battery operated with the battery box located to one side of the platform to permit the carrying of long loads on the opposite side. A formed and



padded seat is mounted on the cover of the recessed battery box. A load area of 20 square feet is obtained with the truck's 56 inch long platform. The Hustler is equipped with reversing controller interlocked with line contactor, affording three speeds forward and reverse. The electric drive motor, powered by 36-volt battery of 192 to 281 ampere-hour capacity, has an overload capacity 300 per cent of rated load for thirty minutes with temperature rise not exceeding 65° C. Power is chain-delivered from the motor to the drive wheels through a differential on jack shaft.

Metal Detector

A new electronic metal detector that will detect metal of any kind in non-metallic materials such as rubber, limestone, lumber, textiles, coal, etc. is announced by the Eriez Mfg. Co., 1323 E. 12th St., Erie, Pa. The equipment consists of two parts: (1) The detector or search coil, usually custom built to surround the material flow in the inspection area; (2) a water tight metal control cabinet, housing the electronic and control relays which are mounted in any location within reasonable distance for connection to the search coil. Controls

NEW SAFETY EQUIPMENT FOR INDUSTRY



Manufacturers are invited to send in announcements of new products, or improved special features. Only items which can be considered as "news" to our readers will be published.

permit adjustment of sensitivity for detecting either large or small pieces of metal or both.

Detection of tramp metal is simply and easily made. The product to be inspected is conveyed by belt to the search coil where it enters an electro-magnetic field. If foreign metal is present the detector will automatically stop the belt or operate mechanical, audible or visual signal devices, such as a reject arm, horn, bell, flashing light, or marking device. The selection of the signal or marking device depends upon the application involved.

The minimum size of metal particle detectable is generally dependent upon the size of the search coil and the "product effect" of the material being handled. Adjustment can be made to detect the particular size of metal that is causing trouble. For example, if only large pieces are creating difficulty, sensitivity can be adjusted so small pieces of metal will not be detected. The unit operates effectively on belt speeds up to 900 feet per minute and where magnetic separation cannot be obtained.

Work Glove

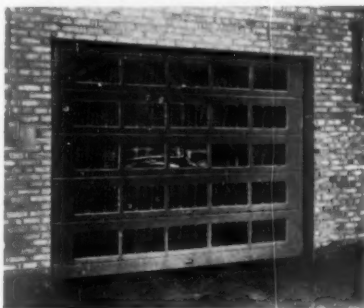
The development of a highly wear-resistant non-slip finish for its Sureseal PK Coated Fabric Gloves has just been announced by the Surety Rubber Co., 257 Hall Ave., Carrollton, Ohio. This finish gives the gloves effective gripping action in liquids, including lubricants, yet it does not injure metals or machinery.



Although the Sureseal PK Coating is already highly abrasion-resistant, the non-slip Griptite Finish adds greatly to wear. The finish is cured into the glove and lasts as long as the glove. Gloves with Griptite Finish are available in knit wrist, band top, safety cuff, and gauntlet types—most styles with or without ventilated back, as desired. All styles are molded to a comfortable curved finger design.

Rolling Door

An improved type of closure for paint-spray rooms and other work areas where air is subject to high spray or powder content has recently been added to the line of sectional, all-metal, Rol-Top doors made by Kinnear Mfg. Co., Columbus 16, Ohio. In addition to the upward-acting convenience and space economy of the overhead door, the new door features rows of standard, furnace-type, spun-glass filters in each panel. This permits a continuous supply of clean, fresh air to circulate into the room, even when the door is closed, and at the same time filters any air escaping from the room through the door.

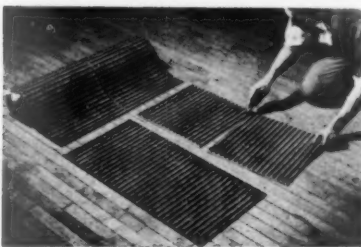


Although filters are easily removed whenever replacement is necessary, the original filters can be used indefinitely by simply "dry washing" them from time to time with the high pressure air hose.

The doors are also equipped with several glass panels for easy visibility. They feature heavy-duty torsion-spring counterbalance, and operate on ball-bearing rollers moving in steel tracks that raise the door easily to a horizontal position overhead. It is available in any size, for manual or motor operation and is designed for easy, low-cost maintenance.

Collapsible Box

Adapting all the time-tested features of woven wood-and-wire construction for parts handling containers, the G. B. Lewis Co., Watertown, Wis., has recently ex-



panded its line to include a collapsible wooden box. The new unit, known as the

Lewis Collapsible No. 2 Box, fills the requirements for a container which can be used for materials handling in the plant (or between plants), seasonal storage of parts or finished products, and which can be quickly disassembled for a space and freight saving return unit.

Side and end panels of the box are of woven wood-and-wire. They are built up around a skid or pallet-type bottom and then rigidly banded with steel straps. In addition, interlocking corner clamps of 11 gauge steel secure the panels and the bottoms and provide protection to the boxes.

Watchman's Clock

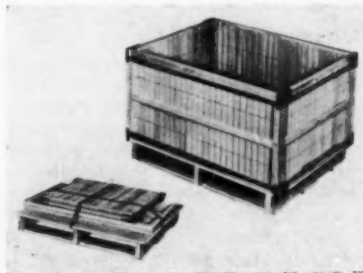
Chicago Watchclock, 1526 S. Wabash Ave., Chicago 5, Ill. has added Spartan Model A clock to their Watchclock System which eliminates the winding stem in the clock movement and uses a key instead.



Hence, there is no projecting stem to bend or break should the clock be roughly handled. The clock is so fixed that, when the watchman inserts a recording key, the face is in reading position. And that face, while amply protected, is sufficiently exposed for quick, easy reading.

Floor Matting

A new all-purpose matting for use as a runner, door mat or auto mat is being marketed under the name of Do-All Matting by D. W. Moor Co., 1724 Adams St., Toledo 2, Ohio. The matting is made of new rubber, with strong cords used as a binder. It comes in 35" x 35" of four



17-inch square sections, which sections can be easily cut with a sharp knife to obtain



NEW SAFETY EQUIPMENT FOR INDUSTRY

Further information on these new products and equipment may be obtained by writing direct to the manufacturer. It will help in identifying the product to mention this announcement.

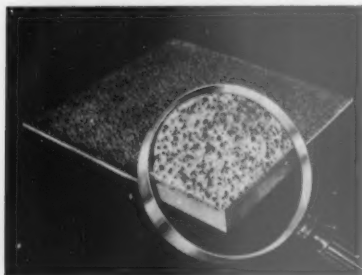
one section for an auto mat or two sections for a door mat. It is also available in rolls of two to seven units which have been joined by vulcanizing.

As a runner matting for use wherever people walk or stand, it serves as a dirt remover, affords safety underfoot, is comfortable to walk on and silences footsteps.

Many autoists are purchasing sections of Do-All to carry in their car for providing traction under the rear tire when mired in the mud and for use under the feet in front and rear compartments of the auto. The matting is $\frac{1}{4}$ " thick and comes in four mottled colors—Venetian red, Erin green, Delft blue and a mosaic pattern. The mat hugs the floor, lies flat and is beveled on all edges.

Non-Skid Floor Plate

Alan Wood Steel Co., Dept. W-80, Conshohocken, Pa. has developed an abrasive rolled steel floor plate which is being marketed under the trade name of A. W. Algrip. There are many uses for this new floor plate in most industrial plants for floors, loading platforms and ramps, walkways, building entrances, and for trench and hatch covers.



Abrasive grain, the same type used in grinding wheels, is rolled as an integral part of the upper portion of steel floor plate. It can be sheared, drilled, countersunk, machined and flame-cut. Flanging is not recommended due to the abrasive material being non-elastic. These plates are available in thickness from $\frac{1}{8}$ " to $\frac{3}{8}$ " inclusive, and in widths up to 60" maximum by 144" long.

Automatic Door-Opening Device

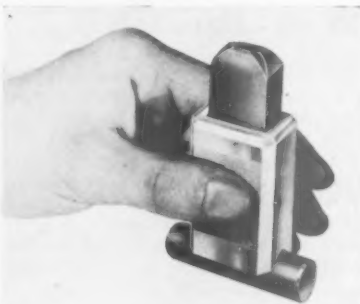
A new type of automatic door-opening device is being introduced by Astra Engineering Co., 933 S. Fair Oaks, Pasadena, Calif. The unit's simplified design eliminates extensive wiring, contact points, relays, electronic devices, yet the opening and closing action is fully automatic. Door opening is electrically initiated by walking on floor area on either side of door. No guide railing is necessary because the door will open when approached from any reasonable angle. The floor plate which governs the contact area is only $\frac{3}{16}$ of an

inch thick. Its low-angle rising edges make a safe, smooth approach for foot traffic, loaded hand trucks or power trucks.

Through precision engineering combined with sound application of hydraulic principles, the control has several outstanding operational features. Both the opening and closing of doors is air-operated and hydraulically controlled. Air power is supplied by the building's regular air pressure system and electricity is furnished from a 110-volt wall outlet. When building air supply is not available, air may be supplied from a small compressor. In case of a power failure in building, doors may be manually operated with ease and safety.

Stamp Holder

Another new marking device has been added to the Luminum-Line Safety Tools of M. E. Cunningham Co., 200 E. Carson St., Pittsburgh 3, Pa., for use with solid steel stamps. It is the Luminum-Line "Set-Rite" stamp holder marking rounds, flats, and other industrial shapes. The new holder is cast from tough, light-weight aluminum and is especially designed to facilitate deep, clear and even marking. Holder sides are knurled to assure an absolute grip, and the holder bottom features a "V" slot to permit positive setting.



Holders are available in standard and deluxe models. On the standard model a pin is used to hold the stamp in place while the deluxe model utilizes a friction spring. The friction spring is especially valuable if several different stamps are to be used in the same holder. Stamps are not slotted so that they can be quickly changed.

The holder is made in a wide range of sizes to accommodate most standard solid steel hand stamps, and special-sized holders can also be made to order. For extra large, heavy-duty stamping, holders are furnished with metal handles.

News Items

Speedi-Dri Corp., a new firm, has been created to market the oil and grease absorbents known as Speedi-Dri and Sol-

Speedi-Dri in the New England states. New York, Eastern Pennsylvania and part of New Jersey. R. H. Hubbell, Jr. is president; Warren E. Sawyer, Jr., vice-president, secretary and treasurer and R. A. Hogan, sales manager.

The firm has established its main headquarters at 210 West Washington Square, Philadelphia. All sales will be handled by the New York City office, 1 Wall St. Waverly Petroleum Products Co., Philadelphia, will continue as distributors for both products in Western Pennsylvania, the South, Middle West, West and Southwest.

* * *

Donald O. Opstad has been promoted to general sales manager for the "Scotchlite" division of the Minnesota Mining & Mfg. Co., St. Paul 6, Minn. He joined the company in 1937 as a tape salesman and was sales manager of traffic and safety products in the "Scotchlite" division prior to this promotion.

Fredrick P. Gunning succeeds Opstad as sales chief for "Scotchlite" safety lines. Gunning was eastern regional sales manager for reflective products before assuming his new duties.

* * *

F. G. Hoyt, general manager of the Woven Wire Fabrics Division, John A. Roebling's Sons Co., Roebling, N. J. announces the appointment of J. F. Berger as manager of sales for industrial wire products and Samuel K. Hornor, manager of sales for hardware products. Mr. Berger has been associated with Roebling for over 35 years. Mr. Hornor has served Roebling in various sales capacities for 12 years.

* * *

Gro-Cord's new tractor trailer makes possible a new service to shoe manufacturers. Gro-Cord Rubber Co., Lima, Ohio feels that this innovation will be of decided advantage to their customers because of faster delivery when needed, lower handling costs, and less chance of shipments going astray. The new trailer can be loaded with 15,000 pairs of heels and soles and be on its way directly to the manufacturer within a very short time after an order has been received. The merchandise will arrive on the manufacturer's dock without having been transferred from one vehicle to another, while in transit.

* * *

Brook J. March has been appointed manager of sales of the National Foam System, Inc. He is a graduate of the School of Chemical Engineering of Lehigh University. His experience includes that of sales manager of a large manufacturer of chemical processing equipment and prior to that was chief engineer of an eastern chemical company. Mr. March will be located at the home office in Philadelphia.

TRADE PUBLICATIONS

in the Safety Field

These trade publications will help you to keep up-to-the-minute on new products and developments in industrial health and safety equipment. They are free and will be sent by manufacturers without obligation to readers of NATIONAL SAFETY NEWS who are responsible for this work. Send in the coupon below checked for the publications you desire. Please make your requests promptly.



1. **Safety Shoes:** Catalog No. 50 illustrates a complete line of steel toe safety shoes in styles including dress oxfords, bluchers, oil-resistant styles, work shoes with leather, cord, composition and vul-cork soles, molders, shoes, boots, hi-cuts and rubber footwear. Iron Age Div., H. Childs & Co., Inc.

2. **Wire Rope:** Folder 49-30 catalogs 133 different sizes and types of stainless steel and monel metal wire rope for use where corrosion affects uncoated carbon steel and galvanized ropes. Typical uses for each rope are listed and various available types are described and illustrated. Macwhyte Co.

3. **"Code Identification":** Standard code symbol stamps for identifying inspectors, workmen, dates; and specially designed stamps for indicating acceptance, rejection, deviation and other inspection markings are the subject of this folder. The stamps are made of alloy safety steel in regular or wedge grip styles. M. E. Cunningham Co.

4. **"The Master of Flame":** A 20-page fire extinguisher catalog that illustrates hand extinguishers, piped systems, stationary units, fire trucks and trailers. It also features charts showing characteristics of approved hand fire equipment and comparative effectiveness graphs. Ansul Chemical Co.

5. **"A New Standard for Load Binders":** A folder showing the ratchet-type load binder for lashing cargo and in building construction. It is durable, made of all steel construction for long, dependable use, with safety, ease of operation and has uniform take-up and release. American Forge & Mfg. Co.

6. **Safety Cans:** Catalog 481 lists and illustrates a complete line of safety gasoline cans, oily waste, and safety filling cans as well as safety flashlights, lanterns, railroad lanterns, electric headlights, carbide

lamps and soldering sets. Justrite Mfg. Co.

7. **Safety Ramp:** Bulletin 4971 on a safety ramp that is a solution to problems of elevation differences. Simple and safe in operation, it reduces lost time and breakage, permits full use of dock area and door heights, it can be moved and used anywhere. Barrett-Cravens Co.

8. **"Safety Color Code":** A folder illustrating a safety color code that establishes colors and symbols to indicate accident hazards, identifying protection equipment and assure orderly arrangement and good housekeeping. E. I. du Pont de Nemours & Co., Inc.

9. **"Sentry Always On Guard":** A brochure showing two safety valves that are self-contained automatic units. When actuated by fire or other emergency, one valve will instantly close all "hot" lines in danger areas; the other will instantly open to full capacity all water flood lines, sprinkler feed lines, steam, CO₂ or fog smothering lines. McRae Valve Corp.

10. **"Over-All Lighting":** Catalog No. 50 tells of a lighting service based on a complete line of lighting units designed by engineers for installation in new drafting rooms, shops, and plants, or to correct inadequate lighting in existing structures. F. W. Wakefield Brass Co.

11. **Fire-Retardant Paint:** A folder containing pertinent information about a fire-retardant paint and coating to be used on all untreated or uncoated wood surfaces, fiber board and various types of partition board. It dries in 24 hours to a hard durable surface, in a semi-flat white finish. Stallton Chemical Corp.

12. **Floor Plate:** A booklet on abrasive rolled steel plate that prevents costly slipping accidents and requires no maintenance. Its many applications include railroad rolling stock, busses, trucks, power

plants, refineries, commercial and industrial building and on small areas as well as entire floors. Alan Wood Steel Co.

13. **"Newest in the Duo Line":** A folder illustrating all aluminum step ladders that have such construction features as serrated reinforced platforms, rubber boots, angle clips, reinforcing rung-type back braces, serrated step braced top and bottom, tool tray plus extra strength and lightness. Duo Safety Ladder Corp.

14. **"What To Do?":** A folder describing a floor patching material for keeping composition, concrete and brick floors free of ruts and cracks. Easy to handle and apply, plasticizer has been added—without changing the rugged strength and toughness—to facilitate spreading, leveling and tamping. Flexrock Co.

15. **Accident Prevention Signs:** A booklet showing a complete line of signs for accident prevention use. Eye, machine, electrical and elevator hazard signs, fire prevention, directional, first aid, reflectorized and traffic signs are illustrated. Stonehouse Signs, Inc.

16. **Sling Chain Record Chart:** A wall chart is available for recording sling chain performance. Designed to be hung in the shop as a permanent record on sling chain care and use, it contains data on working load limits, definitions, instructions and cautions. McKay Co.

17. **Dust Control:** Bulletin 909A on how to make a "dust pocket" survey of plants. Dust collectors save maintenance, lost time and money, and can collect raw materials that would otherwise be lost. Pangborn Corp.

18. **Safety Plate:** Booklet describing 4-way floor plate with raised lug pattern providing firm anti-slip traction, for use wherever slipping hazards exist, and on all walkaway surfaces. Inland Steel Co.

NATIONAL SAFETY NEWS

JANUARY, 1950

20 N. WACKER DRIVE
CHICAGO 6, ILLINOIS

Please have sent to me the publication checked:

NAME	TITLE
COMPANY	
ADDRESS	
CITY	STATE



CESCO's

NEW

LIGHTWEIGHT

COVERLITE

WEIGHS LESS THAN 1 OUNCE

**LOW IN COST BUT
HIGH IN EYE PROTECTION**

● Even this negligible weight (only 97/100 of an ounce) is distributed evenly over the nose, brow and cheeks. No wonder workers wear the new COVERLITE with enthusiasm.

The sturdy injection-moulded, non-flammable frame provides full protection from impact, dust, flying sparks and chips. Good ventilation and ample air space prevent fogging. Large frontal area gives good range of vision in all directions. Easy-to-adjust elastic headband.

COVERLITE goggles can occupy an important place in your safety program. They are ideal for buffing, polishing, light assembly work and spot welding. Choice of clear, light green and dark transparent frames.

For complete information about CESCO's newest safety goggles ask your CESCO distributor or write . . .



the **NEW** COVERLITE goggle

can be worn over most standard types of personal glasses without interference.

CHICAGO EYE SHIELD COMPANY

2306 Warren Boulevard • Chicago 12, Illinois

CESCO FOR SAFETY



OFFICES IN: Boston, Buffalo, Cincinnati, Cleveland, Columbus, Detroit, East Orange, Houston, Los Angeles, Montreal, Philadelphia, Pittsburgh, Seattle, St. Louis, St. Paul, Toledo, Tulsa

For Organic Vapors, Gases, Dusts...

AO's Twin Cartridge RESPIRATOR



Gives Double the
Protection!

Outstanding . . . for the complete protection it provides and for the utter simplicity of its conversion into any of 7 types of respirators with one basic face piece. If you haven't as yet seen the NEW AO R5000 with new *interchangeable* cartridges and disc filter, be sure to ask your nearest AO Safety Products Representative for a demonstration of this highly serviceable equipment!

QUICK FACTS — New Threaded Cartridges — Wider, for lower breathing resistance. To interchange, merely unscrew one cartridge and screw in another for gas-tight seal.

New Filter Retainer Assembly — Takes either chemical cartridges or flat disc of chemically treated felt.

New Face Piece — Non-leaking, snug fitting, comfortable, of durable, pure rubber.

Increased Visual Area — New slender cartridge design and lower location of cartridge afford wider field of vision.

New Flexible Fitting Brace — Face piece adapts to features of wearer by slightest hand pressure on brace for perfect fit. Headband pressure cannot pull pliable rubber face piece out of shape.

New Inhalation and Drain Valve Designs — Provide positive action, thorough drainage and no interference by clothes or face.

New Inventory Economy — "7-respirators-in-1" permit standardization, hence smaller inventories. Double length headband permits "parking" of respirator around neck when not in use. Auxiliary filters available which extend cartridge filter life.

American Optical
SAFETY PRODUCTS DIVISION

Southbridge, Massachusetts • Branches in Principal Cities

e

es —
inter-
screw
either
ically
tting,
ridge
afford
dapt
ssure
can-
hape.
Pro-
nd no
-in-1"
ories.
g" of
n use.
xtend